A study of the clinical characteristics, risk factors and mortality outcomes of patients admitted with acute decompensated heart failure, to general medical wards and intensive care units in a tertiary care hospital in South India (CHROME-HF)

A dissertation submitted in partial fulfilment of the rules and regulations for MD General Medicine examination of the Tamil Nadu Dr.M.G.R Medical University, Chennai, to be held in May 2019.

DECLARATION

This is to declare that this dissertation titled **"A study of the clinical characteristics, risk factors and mortality outcomes of patients admitted with acute decompensated heart failure, to general medical wards and intensive care units in a tertiary care hospital in South India (CHROME-HF)"** is my original work done in partial fulfilment of rules and regulations for MD General Medicine examination of the Tamil Nadu Dr. M.G.R. Medical University, Chennai to be held in May 2019.

CANDIDATE

Kevin John John,

Post Graduate Registrar,

Department of General Medicine,

Christian Medical College,

Vellore,

Tamil Nadu.

CERTIFICATE

This is to certify that the dissertation entitled, **"A study of the clinical characteristics, risk factors and mortality outcomes of patients admitted with acute decompensated heart failure, to general medical wards and intensive care units in a tertiary care hospital in South India (CHROME-HF)"** is a bona fide work of Dr. Kevin John John towards the partial fulfilment of rules and regulations for MD General Medicine degree examination of the Tamil Nadu Dr. M.G.R. Medical University, to be conducted in May 2019.

GUIDE

Dr. Thambu David Sudarsanam,

MD, DipNB,

Professor and Head,

Department of General Medicine and Clinical Epidemiology,

Christian Medical College,

Vellore.

CERTIFICATE

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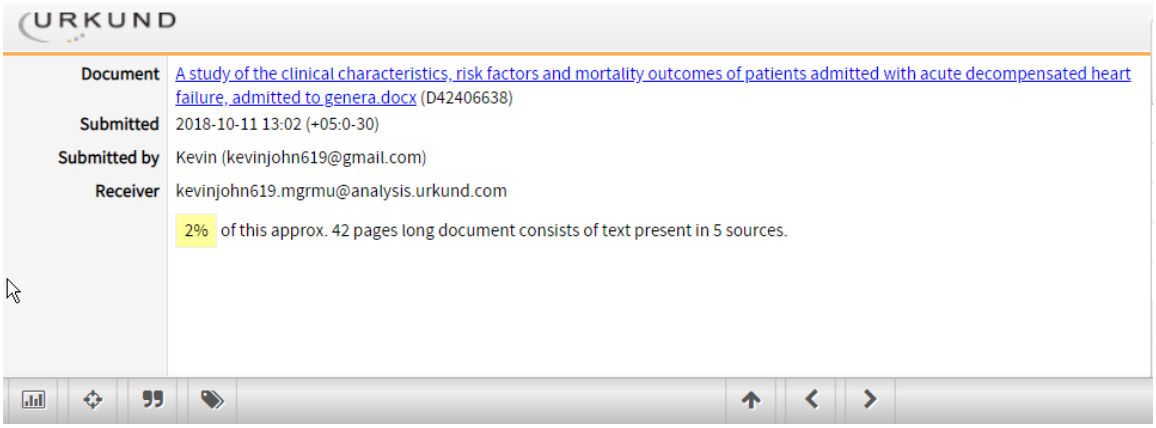
PRINCIPAL

Dr. Anna Pulimood,
Professor,
Department of Pathology,
Christian Medical College,
Vellore.

HEAD OF THE DEPARTMENT

Dr. Thambu David Sudarsanam,
Professor and Head,
Department of General Medicine and
Clinical Epidemiology,
Christian Medical College,
Vellore.

URKUND ANTIPLAGIRISM CERTIFICATE



This is to certify that this dissertation work titled **"A study of the clinical characteristics, risk factors and mortality outcomes of patients admitted with acute decompensated heart failure, to general medical wards and intensive care units in a tertiary care hospital in South India (CHROME-HF)"** of the candidate Dr. Kevin John John with registration number 201611462 in the branch of General Medicine. I personally verified the urkund.com website for the purpose of plagiarism check. I found that the uploaded thesis file contains from introduction to conclusion pages and result shows 2% percentage of plagiarism in the dissertation.

GUIDE

Dr. Thambu David Sudarsanam

MD, DipNB

Professor and Head,

Department of General Medicine and Clinical Epidemiology

Christian Medical College, Vellore

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Table of Abbreviations

ACC .....American college of cardiology

ACEI ..... Angiotensin Converting Enzyme Inhibitors

ADHERE .....Acute Decompensated Heart Failure National Registory

AHA..... American Heart Association

ALARM-HF.....Acute Heart Failure Global Survey of Standard Treatment

ARB ..... Angiotensin Receptor Blockers

ASIAN-HF.....Asian Heart Failure Registry

ATTEND ..... Acute decompensated heart failure syndromes registry

AUC..... Area Under the Curve

BMI.....Body Mass Index

CHE ..... Catastrophic Health Expenditure

CHROME-HF ……characteristics, risk factors and mortality outcomes of patients admitted with acute decompensated heart failure

COPD.....Chronic Obstructive Pulmonary Diease

EFFECT..... Enhanced Feedback for Effective Cardiac Treatment

EHFS ..... EuroHeart Failuer Survey

ESC.....European Society of Cardilogy

HEPA..... Health Enhancing Physical Activity

HFmrEF .....Heart failure with mid-range ejection fraction

HFpEF ..... Heart failure with preserved ejection fraction

HFrEF ..... Heart failuer with reduced ejection fraction

INTER-CHF.....International Congestive Heart Failure cohort

IPAQ ..... Internationl Physical Activity Questionnaire

IQR.....Interquartile Range

IRB..... Institutional Review Board

LBBB ..... Left Bundle Branch Block

LDL.....Low Density Lipoprotein

LVEF .....Left Ventricular Ejection Fraction

MLHFQ ..... Minnesota Living with Heart Failure Questionnaire

NIV ..... Non Invasive Ventilation

NTproBNP ..... N-terminal pro b-type natriuretic peptide

NYHA .....New York heart Association

OOP ..... Out-of-Pocket

OPTIMIZE-HF ..... Organiszed Program to Initiate Lifesaving Treatment in Hospitalized Patients with Heart Failure

PAR .....Population Attributable Risk

PURE ..... Prospective Urban Rural Epidemiological Study

RBBB.....Right Bundle Branch Block

ROC .....Receiver Operating Characteristic

TAPSE ..... Tricuspid Annular Plane Systolic Excursion

THESUS-HF.....The Sub-Sahran Africa Survey of Heart Failure

THFR .....Trivandrum Heat Failure Registry

1 Introduction

Heart failure is an important cause of mortality and morbidity in our country. The incidence of heart failure is rising due to the ageing population, lifestyle changes and better access to healthcare. Due to this and various other factors, there are more patients admitted to our hospital with heart failure than ever before. It is important to understand the clinical profile, risk factors and predictors of outcome in patients with heart failure. Identifying the risk factors in our population will help in directing therapy aimed at modification of these risk factors which will translate to better outcomes and prevention of episodes of decompensation. Predictors of outcome will help us prognosticate patients, which will help in better physician-patient communication and also in the early identification of patients who may need a higher level of care like an intensive care unit admission. Various models have been developed for predicting the outcome in heart failure using data from western studies. However, it is not known whether these prediction models can be applied to our population. Last, but not least, heart failure imposes a tremendous financial burden on the patient. This study was done to assess the clinical profile, mortality, prognostic factors and economic burden of heart failure in patients admitted in the general medicine wards and compare the findings with the largest existing heart failure cohorts from India, namely, the Trivandrum and Manipal heart failure cohorts.

2 Aim

The aims of the study were to study the clinical characteristics, risk factors and outcomes of patients admitted with acute decompensated heart failure, admitted to general medical wards and intensive care units in a tertiary care hospital in South India.

3 Objectives

3.1 Primary Objective

3.1.1 To determine the incidence density of mortality of patients admitted with acute decompensated heart failure to our hospital.

3.2 Secondary Objectives

3.2.1 To determine the median survival time of patients admitted with acute decompensated heart failure to our hospital.

3.2.2 To study predictors of outcome in terms of mortality and survival time in patients admitted with acute decompensated heart failure.

3.2.3 To compare the observed mortality and survival time to that predicted by the Seattle heart failure model

3.2.4 To determine the costs incurred by patients admitted with acute decompensated heart failure.

4 Review of literature

4.1 Definition of heart failure

Heart Failure is a disease that is very common in adults and is responsible for considerable mortality and morbidity. As a result of the ageing population and the availability of better modalities to treat heart failure, the number of patients living with heart failure is larger than ever. In recent years, there has been a large focus on various aspects of heart failure from its epidemiology, pathophysiology and therapeutics. Although we have come a long way, over the years, it is becoming clearer that heart failure is a much more complex disease process than originally thought.

The 2016 European Society of Cardiology guidelines defined heart failure as a "clinical syndrome characterized by typical symptoms (e.g. breathlessness, ankle swelling and fatigue) that may be accompanied by signs (e.g. elevated jugular venous pressure, pulmonary crackles and peripheral edema) caused by a structural and/or functional cardiac abnormality, resulting in a reduced cardiac output and/or elevated intracardiac pressures at rest or during stress."(1). From this definition, it is clear that heart failure is a clinical diagnosis. It cannot be diagnosed by a single test or lab investigation. It needs a combination of history, physical examination and relevant investigations for its diagnosis.

4.2 Global Burden of Heart Failure

4.2.1 Prevalence of Heart Failure in the World

The combination of the ageing population and the availability of new and improved therapeutic interventions that have increased the life expectancy of the population has meant that the prevalence of heart failure is increasing.

According to the 2018 AHA update on heart disease and stroke statistics, 6.5 million Americans above the age of 20 years are living with heart failure. Given that the population of the United States of America at this time was 326.76 million, the prevalence of heart failure at this time was 19.89 per 1000 individuals(2).

One of the landmarks cohort studies in heart failure was the Framingham study which followed up a cohort of 10,311 subjects for 50 years. This study found that the prevalence of heart failure increased with the age of the population. The prevalence in men increased from 8 in 1000 in the 50-59 year old subset of the cohort and went up to 66 per 1000 in the 80-89 year old subset of the cohort. The respective values in women were 8 and 79 which reflected the same trend(3).

In a retrospective cohort study conducted in the United States of America that looked at Medicare data from 6,22,789 beneficiaries, the prevalence of heart failure was

approximately 120 per 1000 in the year 2003. There were more males with heart failure(130 per 1000) as compared to women(115 per 1000)(4).

A male preponderance was also found in a prospective cohort study in the Netherlands- the Rotterdam study which included 7983 participants who were followed up from 1997 to 2001(5).

In comparison, a prospective cohort study was conducted among the inhabitants of Olmsted County in Minnesota who were above the age of 45 years and above from June 1997 to September 2000 found a much lower prevalence of 2.2%, 44% of whom had preserved ejection fraction(LVEF>50%)(6).

On the other hand, the point prevalence of heart failure according to the REACH study which looked at data from patients in the Henry Ford Health System in Detroit, was similar to the one arrived at my analyzing the Medicare data - 10.9 per 1000 men and 10.5 per 1000 women(7).

From the data given above, we can estimate the prevalence of heart failure to lie between 0.8% and 13% depending on the sex, age group and geographical location of the population being studied.

4.2.2 Incidence of Heart Failure in the World

As mentioned above, one of the landmarks cohort studies in heart failure was the Framingham study. The incidence of heart failure at the end of the study was 564 per 100000 person years in males and 327 per 100000 person years in females(8).

Looking at the data form the PREVEND (Prevention of Renal and Vascular End-stage Disease) study, which was a community-based cohort study which followed up 8592 individuals living in Groningen, the Netherlands for a median period of 11.5 years, it was ascertained that 4.4% of the population (cumulative incidence) was newly diagnosed with heart failure in the study period. Of these individuals almost one third had heart failure with preserved ejection fraction (LVEF > 50%) (34%-125 people) and two thirds had heart failure with reduced ejection fraction (LVEF<40%) (66%-241 people). This study did not include patients with ejection fraction between 40-50%. It was also found that the mortality was higher in the patients with heart failure with reduced ejection fraction as compared to patients with heart failure with preserved ejection fraction(9).

A retrospective cohort analysis from 1994 to 2003 from Medicare data from the United States of America, showed that the incidence of heart failure was 29 per 1000-person years. Incidence among men was more than in women by 10 per 1000 person years(4).

The overall incidence rate of heart failure in the Rotterdam study mentioned above was 14.1 per 1000 person-years. The incidence rate was higher in men(17.6 per 1000 man-years) compared to women(12.5 per 1000 woman years)(5).

According to the REACH study, the annual incidence of heart failure was 5.5 per 1000 in men and 5.3 per 1000 in women(7).

4.3 Burden of heart failure in India

The Global Status on Non-Communicable Diseases Report (2014) had reported that cardiovascular deaths are the leading cause of premature death (before 70 years of age) due to non-communicable diseases in 2012 with a contribution of 37% towards the total number of deaths. The annual mortality from cardiovascular deaths was 17.5million globally in 2012 and is predicted to go up to 22.2 million in 2030. (10). In India, there were 2.5 million deaths due to cardiovascular disease in 2008(11).

It has been difficult to estimate the prevalence and incidence of heart failure in India. The various additional factors that contribute to this problem in India include the diversity in population, lack of a good healthcare infrastructure and inaccessibility of healthcare by a vast proportion of the population. A conservative estimate of Indian prevalence and incidence has been made by various authors by extrapolating western data with statistical adjustment. Pais et al have estimated that 22.7 million Indians had heart failure in 2011(12). Huffman and Prabhakaran have estimated that 491,600 to 1.8 million individuals could develop heart failure in India every year. They also estimated the prevalence of heart failure

in India in the year 2000 to be between 1.3 and 4.6 million. Given that the population of India was 1.05 billion at this time, these numbers translate to an incidence of 4.6 to 17.1 per 10,000 individuals per year and a prevalence of 12.3 to 43.7 per 10,000 individuals respectively.(13). *

The recently published INDUS study which looked at 10,163 patients in a rural setting found the prevalence of heart failure as 9% of all symptomatic patients. Extrapolating this data, the estimated the prevalence of heart failure in the rural community was 1.2/1000. The overall prevalence of heart failure in the Indian population according to this study was 1%(14). However, there have been concerns raised that this study underestimated the prevalence of heart failure in India.

The mean age of patients in the Kerala ACS registry as 60.4 years and in the CREATE (Treatment and outcomes of acute coronary syndromes in India) registry was 57.5 years. This data shows that Indian patients with heart failure after an acute coronary syndrome are younger than patients in western countries(15,16).

A multi-center study, which included 13 urban and 5 rural hospitals was conducted in Trivandrum, Kerala. This was the Trivandrum Heart Failure Registry (THFR). Patient admitted with heart failure were enrolled from January to December 2013. A total of 1205 patients were recruited. The analysis of data revealed that the most common cause of heart failure was ischemic heart disease (72%). The 90-day mortality was found to be 2.43 deaths per 1000 person-days (95% CI 2.11-2.78). Older age, lower education, poor ejection

fraction, higher serum creatinine, New York Heart Association functional class IV, and suboptimal medical treatment were associated with higher risk of 90-day mortality.(17)

The incidence and prevalence of heart failure is likely to rise in our country. The various reasons for this are the increasing age of the population, the increase in incidence of coronary artery disease which contributes to heart failure, increasing other diseases like hypertension and diabetes mellitus along with persistence of diseases like rheumatic heart disease and untreated congenital diseases along with the increasing burden of chronic lung disease(18).

4.4 Pathophysiology of Heart Failure

Heart failure is a clinical syndrome in which various pathological mechanisms converge to produce a common outcome. The pathophysiology of heart failure is complex and studies are continuing to unravel the various facets of this disease process. The syndrome of heart failure begins with the development of risk factors which lead to dysfunction of myocardium. The patients are asymptomatic at first. Gradually the symptoms worsen and the patient develops end-stage heart failure.

Various risk factors have been identified which predispose an individual to the development of heart failure. Some of these risk factors are coronary artery disease, hypertension, dyslipidemia, valvular heart disease, diabetes mellitus, chronic obstructive pulmonary disease, chronic kidney disease, family history of cardiomyopathies, exposure to cardiotoxic agents etc.(1,19).

These risk factors cause injury to the myocyte cells by direct injury or through activation of the neurohormonal system. Damaged myocyte cells are lost and replaced by fibrous tissue. This causes eccentric hypertrophy of the remaining myocyte cells and leads to dilatation of the left ventricle and functional mitral regurgitation. All these changes are referred to as “left ventricular remodeling”(20). These adaptive changes, which are beneficial in the short term, lead to increased oxygen consumption by the myocyte cell and less efficient contraction. This also activates the renin-angiotensin-aldosterone system which leads to retention of sodium and edema. There is also gut congestion which leads to malabsorption and cardiac cachexia(21). There may be renal dysfunction associated with heart failure which further accentuates the fluid overload state and leads to poor outcome(22).

There is mounting evidence that heart failure is a systemic pro-inflammatory state. Elevated cytokines, reactive oxygen species, reduced production of nitric oxide and reduced protein kinase C activity contribute to this inflammatory state which damages the myocyte cells(23–25).

Another deleterious effect of cardiac remodeling is the damage to the conduction system leading to various arrhythmias. Arrhythmias can be both a precipitant and sequelae of heart failure. Sudden cardiac death due to arrhythmia is common in patients with heart failure(26).

Most of the initial trials in heart failure were done in patients with reduced ejection fraction. However, now it is known that up to 50% of patients with heart failure have normal left ventricular ejection fraction. Mortality rates between these two groups may be similar. Although there is little evidence to guide the choice of therapy in patients with heart failure with preserved ejection fraction, the recognition of this entity means that new trials conducted in heart failure include this heterogenous population also.

As mentioned before, heart failure is a complex interaction between various pathogenic mechanisms and adaptive responses. The elucidation of various pathways involved in the pathogenesis of heart failure coupled with designing of drugs targeting these pathways should give us new therapeutic strategies for heart failure in the future.

4.5 Classification of Heart Failure

There are various approaches to classify heart failure. One approach is to classify heart failure based on echocardiographically determined ejection fraction. This was the basis for the previous classification of heart failure into systolic and diastolic heart failure. However, the guidelines published by the European Society of Cardiology (ESC) in 2016 have modified this classification. The ESC classifies heart failure into heart failure with preserved ejection fraction(HFpEF) (left ventricular ejection fraction[LVEF] ≥50%), heart failure with mid-range ejection fraction(HFmrEF)(LVEF 40-49%) and heart failure with reduced ejection fraction (HFrEF)(LVEF <40%)(1). The table below shows the 2016 ESC classification of heart failure.

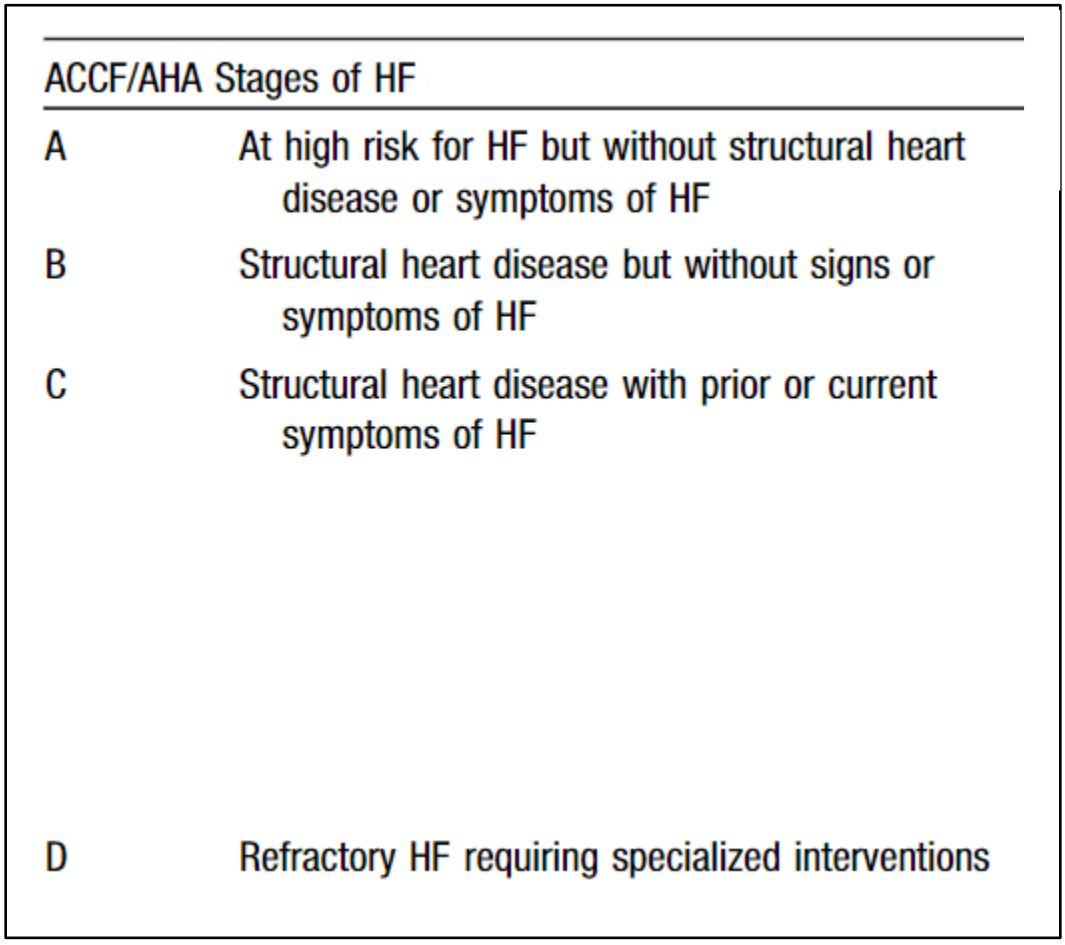
Table 1.Classification of heart failure

Type of HF		HFrEF	HFmrEF	PFpEF
CRITERIA	1	Symptoms ± Signs	Symptoms ± Signs	Symptoms ± Signs
	2	LVEF <40%	LVEF 40–49%	LVEF ≥50%
	3	–	1.Elevated levels of natriuretic peptides. 2.At least one additional criterion: a.relevant structural heart disease (LVF and/or LAE); b.diastolic dysfunction	1.Elevated levels of natriuretic peptides. 2.At least one additional criterion: a.relevant structural heart disease (LVF and/or LAE); b.diastolic dysfunction

HF:Heart failure, HFrEF-Heart failure with reduced ejection fraction, HFmrEF-Heart failure with mid-range ejection fraction, HFpEF- Heart failure with preserved ejection fraction

Another classification of heart failure has been adopted by the American College of Cardiology Foundation and American Heart Association (ACCF/AHA). They have classified heart failure into 4 stages(19). Stage A consists of patients who have a high risk for development of heart failure, but do not have any structural heart disease or current symptoms of heart failure. Stage B consists of patients who have structural heart disease but are asymptomatic. Stage C encompasses patients who have a structural heart disease and have current or prior symptoms of heart failure. Stage D includes patients who have refractory heart failure and require special interventions. An interesting feature of this classification is that once a patient progresses from one stage of heart failure to the other, they cannot revert back to the previous stage regardless of treatment. The ACCF/AHA classification of heart failure is shown in the table below

Figure 1 ACC/AHA Stages of heart failure



ACCF/AHA Stages of HF	
A	At high risk for HF but without structural heart disease or symptoms of HF
B	Structural heart disease but without signs or symptoms of HF
C	Structural heart disease with prior or current symptoms of HF
D	Refractory HF requiring specialized interventions

4.6 Clinical Diagnostic Criteria for Heart Failure

Studies looking into heart failure have been plagued by a fundamental problem- defining the disease. As mentioned before, no single physical finding the laboratory test can diagnose heart failure. It is a clinical diagnosis of components of history, physical examination and few relevant investigations. Over the years, various studies have used multiple diagnostic criteria to define heart failure. Some of the various diagnostic criteria that have been described over the years are given below:

1. Framingham Criteria: (27)

MAJOR CRITERIA
o Paroxysmal nocturnal dyspnea or orthopnea o Neck vein distension o Rales o Cardiomegaly o Acute pulmonary edema S3 gallop o Increased venous pressure ≥ 16cm water o Circulation time ≥ 25 sec o Hepatojugular reflux
MINOR CRITERIA
o Ankle edema o Night cough o Dyspnea on exertion o Hepatomegaly o Pleural effusion o Vital capacity decreased 1/3 from maximum o Tachycardia rate of ≥ 120/min)
MAJOR OR MINOR CRITERION
o Weight loss ≥ 4.5 kg in 5 days in response to treatment
HEART FAILURE present with 2 major or 1 major and 2 minor criteria

2. Boston Criteria:(28)

History:
o Rest dyspnea (4pts) o Orthopnea (4pts) o Paroxysmal nocturnal dyspnea (3 pts) o Dyspnea on walking on level (2pts) o Dyspnea on climbing (1pt)
Physical Examination:
o Heart rate abnormality (1–2pts) o Jugular venous pressure elevation (1–2 pts) o Lung crackles (1–2pts) o Wheezing (3 pts) o Third heart sound (3 pts)
Chest Radiograph:
o Alveolar pulmonary edema (4 pts) o Interstitial pulmonary edema (3 pts) o Bilateral pleural effusions (3 pts) o Cardiothoracic ratio ≥0.50 (3 pts) o Upper-zone flow redistribution (2 pts)
Definite HEART FAILURE 8–12 pts, possible 5–7pts, unlikely 4 pts or less

3. European Society of cardiology Criteria:(29)

1.Symptoms of heart failure (at rest or during exercise) and
2.Objective evidence of cardiac dysfunction (at rest) and
3. Response to treatment directed towards heart failure (in cases where diagnosis is in doubt).
Criteria 1 and 2 should be fulfilled in all cases

4. Gothenburg Score(the Study of Men born in 1913):(30)

Cardiac Score:
o History of heart disease (1-2 point) o Angina (1-2 point) o Edema (1 point) o Nocturnal Dyspnea (1 point) o Rales (1 point) o Atrial Fibrillation (1 point)
Pulmonary Score
o History of chronic Bronchitis/Asthma (1-2 point) o Cough, phlegm or wheezing (1 point) o Ronchi (2 point)
Cardiac and Pulmonary scores are calculated differently and used to differentiate cardiac cause of breathing difficulty from a respiratory cause of the same.

5. NHANES score:(31)

History:
o Short of breath when hurrying on the level or up slight hill? -1 point o Short of breath when walking at ordinary pace on the level? - 1 point o Do you stop for breath when walking at own pace? -2 points o Do you stop for breath after 100 yards on the level? -2 points
Physical Examination:
o Heart rate 91–110, 1 point; > 110, 2 points o Rales basal, 1 point; > basal, 2 points o Neck vein distension- 1 point o Neck vein distension and edema/hepatomegaly -2 points
Chest X-ray:
o Cephalization of pulmonary veins- 1 points o Interstitial edema -2 points o Alveolar fluid and pleural fluid -3 points o Interstitial edema and pleural fluid -3 points
Diagnosed as heart failure if the score is >3

Many studies have compared these diagnostic criteria amongst each other, to ascertain which diagnostic criteria is superior and relevant for clinical use.

The ICARe Dicomano study compared the Framingham criteria, Boston criteria, the Gothenberg criteria and European society of cardiology principles for diagnosis of heart failure by applying them to the entire elderly population(age>65 years) of Dicomano, a town in Italy. In this study, the prevalence of heart failure obtained using these four diagnostic criteria ranged from 9 % (ESC criteria) to 20.8 % (Gothenburg criteria). The study concluded that the Framingham and Boston criteria were better than Gothenburg and ESC criteria in terms of construct validity when compared to data derived from echocardiography. Boston criteria was found to be superior to others in terms of its ability to predict a worse outcome(32).

The change in survival associated with the diagnosis of heart failure according to two different diagnostic criteria were studied by Schellenbaum et al. These investigators compared the original Framingham diagnostic criteria with a Cardiovascular Health Study definition of heart failure that was based on symptoms, signs and clinical tests, and the adjuration was done by a central committee of physicians. The application of Framingham criteria resulted in a 23% higher incidence of heart failure when compared to the cardiovascular health study definition(33).

One study that compared various diagnostic criteria for heart failure to a reference standard showed that the Framingham criteria, Boston criteria and NHANEs criteria had a 100%

sensitivity in diagnosing definite heart failure, while the Gothenburg score had only 80% sensitivity in this regard. The European society of cardiology criteria was not included in this study. The specificity for diagnosis of definite heart failure was highest for the Boston criteria (94%), followed by the NHANES criteria(82%), the Framingham criteria(78%) and Gothenburg criteria(63%)(34).

The Framingham criteria and the Boston criteria were validated using radio nucleotide ventriculography in 407 patients. This study found that the sensitivity to detect heart failure with a left ventricular ejection fraction of <40% for Framingham criteria was 63% and for Boston criteria was 50%. The specificities were 63% and 78% respectively(35).

From the above evidence it is clear that the Framingham and Boston criteria are better than the others. Due to the similar sensitivity between the two, and few studies showing that the Boston criteria has better specificity than the Framingham criteria, we have decided to use the former as the inclusion criteria for our study. The Boston criteria, when first described was validated and showed a 90% sensitivity in detecting a capillary wedge pressure of >12 mm of Hg.(28). It can be noted that the INTER-CHF(International Congestive Heart Failure) trial which is a large multicenter cohort study looking at various aspects of heart failure used the Boston criteria as part of their inclusion criteria for clinical diagnosis of heart failure. (36)

4.7 Long Term Outcome Data in Heart Failure

4.7.1 Global Outcome Data in Heart Failure

In the Framingham cohort, at the study completion, the 30-day mortality was 11% for men and 10% for women, the 1-year mortality was 28% for men and 24% for women and the 5-year mortality was 59% in men and 45 % in women.(8)

The INTER-CHF study which was a prospective, international multicenter longitudinal cohort study including 108 centers in 16 countries with a 12 month follow up of 5813 heart failure patients found that the 1-year mortality was 13.9 % in the Asian cohort compared to 30.6 % in the African cohort.(37)

Patients hospitalized for heart failure for the first time in 2009 and who were beneficiaries of the French national health insurance general scheme were followed up for 2 years. 69,958 individuals were included in this study. The 1-month survival according to this study was 89% and the 1-year and 2-year survival were 71% and 60% respectively. Female sex; age < 55 years, absence of co-morbidities, use of angiotensin-converting enzyme inhibitors or angiotensin receptor blockers, beta-blockers, lipid-lowering agents or oral anticoagulants during the month following discharge were associated with a better outcome(38).

A meta-analysis of 31 studies published till 2006 which included 41972 by the MAGGIC group(Meta-analysis global group in Chronic Heart Failure) showed that there was a 32% lower risk of death among patients with heart failure with preserved ejection fraction when compared to patients with heart failure and reduced ejection fraction(39).

Data from the EFFECT study which included 2802 patients admitted to 103 hospitals in Ontario, Canada from 1999 to 2001 with a discharge diagnosis of heart failure identified that the presence of elevated blood pressure, peripheral vascular disease, low sodium, renal disease, presence of cancer, dementia, dialysis, anemia and tachypnea were predictors of mortality in patients with heart failure with preserved ejection fraction. The risk of death in patients with heart failure and reduced ejection fraction were hypertension, peripheral vascular disease, renal disease, cirrhosis and dementia(40).

Data from the ADHERE registry which was published in 2006 has identified serum creatinine >2mg/dl, elevated urea(>37mg/dl) and systolic blood pressure <125mm hg were associated with increased in-hospital mortality in patients admitted with acute decompensated heart failure(41).

Data from the Euro Heart Failure Survey (EHFS) II which included 2981 patients from 30 European countries who were admitted with acute heart failure showed that the 3-month

mortality was 8.1% and the 1-year mortality was 20.5%. Age, prior myocardial infarction, creatinine level, and low plasma sodium were factors predicting increased mortality(42).

Analysis of data from 25,40,838 elderly Medicare beneficiaries admitted with HF in a retrospective cohort study between January 1, 2001, and December 31, 2005 showed that unadjusted in-hospital mortality declined from 5.1% to 4.2%. However the 30-day, 180-day, and 1-year all-cause mortality remained constant at 11%, 26%, and 37%, respectively(43).

Another retrospective cohort study which looked at 6,22,789 Medicare beneficiaries from 1994 to 2003, the 30 day mortality was 12.6% for men and 10.8% for women, 1 year mortality rate was 27.5% and 5 year mortality rate was 64.9% for men, 20% and 60.2% for women(4).

Data from the OPTIMIZE-HF registry which had 20,118 patients with left ventricular systolic dysfunction and 21,149 patients with preserved left ventricular ejection fraction (defined as >40% EF) showed that the 60 to 90-day mortality rate was similar between the two groups (9.5% vs 9.8%). The rate of getting re-admitted in this time period was also similar (29.2% vs 29.9%). However, the in-hospital mortality rates were different. It was 2.9% in the group with preserved ejection fraction and 3.9% in the group with reduced ejection fraction($p<0.0001$)(44).

An analysis of 2802 patients with a discharge diagnosis of heart failure in Ontario, Canada from April 1999 to March 2001 as part of the EFFECT study (Enhanced Feedback for Effective Cardiac Care Treatment) showed that the 30-day mortality rate was 7.1% and 5.3 % for patient with heart failure and reduced ejection fraction vs preserved ejection fraction respectively. The 1-year mortality rate was found to be 25.5% and 22.2% respectively in the groups mentioned above(40).

The ADHERE database (Acute Decompensated Heart Failure National Registry) has data from more than 100,000 patients who were hospitalized with acute heart failure. Analysis of this data was published in 2006 and showed that the in-hospital mortality was lower in patients with preserved ejection fraction(2.8%) when compared with patients with reduced ejection fraction(3.9%)(OR=0.86, p=0.005)(41).

The Rotterdam study also looked at survival after the first diagnosis of heart failure. 30-day survival was 86%, 1-year survival was 63%, 2-year survival was 51% and 5-year survival was 35%. 2.1 years was the median survival period(5).

Data from the UK-HEART study (United Kingdom heart failure evaluation and assessment of risk trial) in which 553 patients with heart failure were followed up and 5-year mortality was assessed. The 5-year mortality was 41.5% in the subset of patients with impaired ventricular systolic function(EF<50%) and 25.2% in the subset of patients with preserved systolic function(45).

An analysis of 23,505 Medicare patients with a first admission for heart failure at 29 Northeast Ohio hospital from 1991 to 1997 showed that the in-hospital mortality was 6.4%, 30-day mortality was 8.6% and 1-year mortality rate was 36.5% at the beginning of the study. At study completion, the in-hospital mortality also declined markedly with an absolute decline of 3.7 % (95% CI -4.3 to -3.0), with a 52.8% relative decrease. The decline in 30-day mortality was only 1.4% (95% CI -2.5 to -0.1, P <.05), a relative decline of 15.3%. The 1-year mortality declined by 5.3% (95% CI -3.2 to -7.4, P <.001), a 14.6% relative decrease.(46)

The THESUS-HF was an African cohort of patients with heart failure admitted to 12 hospitals in 9 countries. The study was conducted between July 2007 and June 2010 and included 1006 patients with heart failure. This cohort of patients had anything-hospital mortality of 4.2% and the median duration of hospital stay was 7 days. The 180-day mortality rate was 17.8%(47).

In the Framingham study, the median survival after a diagnosis of heart failure was made was 1.7 years for males and 3.2 years for females. At 1 year 57% of the males and 64% of females survived. At 5 years 25% of males and 38 % of females survived(48).

The Asian heart failure study (ASIAN-HF) prospectively developed a multi-National Registry of patients with symptomatic heart failure with reduced ejection fraction.(49) The study was conducted between October 1, 2012 and December 31, 2015 and successfully

recruited a total of 5276 patients with heart failure with reduced ejection fraction (HFrEF). The 6-month all-cause mortality was 6.9% in the study.(50)

The outcome data from a few of the landmark cohort of patients with heart failure are summed up in the table below:

Table 2 Outcome data from a few of the landmark cohort of patients with heart failure

	Rotterdam	EHFS I	EHFS II	EFFECT	ADHERE	OPTIMIZE-HF	ATTEND	THESUS-HF	ALARM-HF	ASIAN-HF
Patients Number	7983	11327	3580	2450	105388	48612	4842	1006	4953	5276
In-hospital mortality, %		6.90%	6.70%		4%	4%	6.40%	4.20%	11%	
30-day mortality, %	14%			6.40%		4%		11.20%		
60-day mortality, %						9% (60-90 days)		10.60%		
90-day mortality, %		6.60%	8.10%							
180-day mortality, %								17.80%		6.9%
1-year mortality, %	37%		20.50%	24.20%						
Hospital stay, median days		11	9		4	4	21	7	6	

Rotterdam: The prognosis of heart failure in the general population: The Rotterdam Study, EHFS I:EuroHeart Failure Survey I,EHFS II: Euro Heart Failure Survey II, EFFECT: Enhanced Feedback for Effective Cardiac Treatment, ADHERE: Acute Decompensated Heart Failure National Registry, OPTIMIZE-HF: Organized Program to Initiate Lifesaving Treatment in Hospitalized Patients with Heart Failure, ATTEND: Acute decompensated heart failure syndromes registry; THESUS-HF: The Sub-Saharan Africa Survey of Heart Failure, ALARM-HF: Acute Heart Failure Global Survey of Standard Treatment, ASIAN-HF: Asian heart failure registry

4.7.2 Outcome Data in Heart Failure from India

There are only a handful of studies from India that look at the long-term outcomes of patients with heart failure.

A study from rural India from January 2011 to December 2012 looked at 169 patients who presented with heart failure. The in-hospital mortality was 13.01% in this study(51).

The AFAR study looked at in hospital and 6-month outcome of patients admitted with acute decompensated heart failure. 90 patients were enrolled in this study. In this study, the in-hospital mortality was 30.8% and the 6-month mortality was 26.3%(52).

A single-center study of 287 patients with ischemic and non-ischemic heart failure ascertained that the 90-day mortality in ischemic heart failure was 26.6% while in non-ischemic heart failure it was 14.9%. The 2-year mortality was 42.3% and 29.9% in the 2 groups respectively(53).

The Manipal heart failure registry was a retrospective study which looked at 250 patients with heart failure, both with preserved and reduced ejection fraction(54). The in-hospital mortality in this study was 20% in the patients with reduced ejection fraction and 6% in the patients with normal ejection fraction. 14% of patients in the group with reduced

ejection fraction and 15% of the patients in the group with preserved ejection fraction were readmitted within one month of discharge(54).

The largest cohort of patients with heart failure there is the Trivandrum Heart Failure Registry. It includes patients from the urban 5 rural hospitals in Trivandrum, who were admitted with heart failure in the year 2013. A total of 1205 patients were included in the registry. The total in-hospital mortality was 8.5% (CI 6.9-10.0). On follow up, the 30-day and 90-day mortality rates were 12.5 and 18.1% respectively. The 90-day mortality was higher in urban hospitals (18.8%) when compared to rural hospitals (11.8%). The 90-day all-cause mortality rate was 2.43 deaths per 1000 person-days (CI 2.11-2.78). It was also found that patients who received guideline-based medical therapy had a lower mortality when compared to patients who did not receive guideline-based medical therapy. This was a significant finding which emphasized that holistic guideline-based care for patients with heart failure can reduce mortality.

The Trivandrum Heart Failure Cohort was followed up beyond the completion period of the original study. The 1-year mortality data was published subsequently. The maximum mortality was in the first 3 months (18.1 %) and the 1-year mortality of patients in the cohort was 30.8%. Surprisingly most of the death occurred in patients aged less than 70 years. The study also found a high readmission rate, with almost one third of patients(30.2%) being readmitted at least once during the one year follow up period(55).

It is clear that there is a dearth of information regarding the outcome of patients with heart failure in India. An ambitious project is underway with this in mind-the Kerala heart failure registry. It is a prospective hospital-based heart failure registry which will involve 16 hospitals and aims to involve a total of 7500 patients with heart failure. The rationale, design and methods of the study were published in 2018. Hopefully, this study will give more insights into readmission rates, mortality and economic burden of patients with heart failure in our country.

The outcome data from a few of the landmark cohort of patients with heart failure from India are summed up in the table below:

Table 3 Outcome data from a few of the landmark cohort of patients with heart failure from India

	O.s et al[1]	AFAR	Roby et al[2]	MHFR		THFR
				LVSD	PSF	
Patients Number	287	90	169	128	122	1205
In-hospital mortality, %	8.01%	30.80%	13.01%	20%	6%	8.50%
30-day mortality, %		15.80%				12.50%
60-day mortality, %						18.10%
90-day mortality, %	14.3%	26.30%				
1-year mortality, %						30.20%
2-year mortality, %	37.60%					
Hospital stay, median days				6	7	6

[1] S. O.S., et al., Long-term outcomes of patients admitted with heart failure in a tertiary care center in India, Indian Heart J (2018), https://doi.org/10.1016/j.ihj.2018.01.016; AFAR: Acute failure registry study; [2] Roby A, Ahammed N. Clinical Profile of Acute Heart Failure in rural Trivandrum. Academic Medical Journal of India. 2014 Nov 20;2(3):99–101; MHFR: Manipal Heart failure Registry; THFR: Trivandrum Heart Failure Registry

4.8 Risk Factors for Development of Heart Failure

4.8.1 Global Data for Risk Factors for Development of Heart Failure

Various risk factors have been identified for the development of heart failure. However, it has been noted that the risk factors are in a state of evolution. Moreover, there are differences in those factors between developed and developing countries. The data from the Framingham study identified hypertension and coronary artery disease as the most important risk factors for development of heart failure. Other risk factors that were identified in the study included cigarette smoking, the presence of left ventricular hypertrophy on electrocardiogram, valvular heart disease and diabetes mellitus(56).

Another cohort study which included the subjects in the original Framingham cohort and their offspring found that the important risk factors for development of heart failure were hypertension (Hazard ratio[HR] 2.07 in males and 3.35 in females), prior myocardial infarction (HR 6.34 in males and 6.01 in females), presence of angina (HR 1.43 males and 1.68 in females), diabetes mellitus (HR 1.82 in males and 3.73 in females), presence of left ventricular hypertrophy (HR 2.19 in males and 2.85 in females) and valvular heart disease (HR 2.47 in males and 2.13 in females. However, as the prevalence of myocardial infarction was much lesser than the prevalence of hypertension, the population attributable risk (PAR) was highest for hypertension (PAR of 39% for males, 59% for females). This was followed by myocardial infarction (PAR of 34% for males, 13% for females), angina pectoris (PAR of 5% for males and females), diabetes mellitus (PAR of 6% for males, 12%

for females), left ventricular hypertrophy (PAR of 4% for males, 5% for females) and valvular heart disease (PAR of 7% for males and 8% for females)(57).

There have been changes in these risk factors over the years. The NHANES I epidemiology study looked at those factors for heart failure over 2 decades and included 1382 subjects with heart failure. The relative risk for development of heart failure was 1.24 for male sex(CI 1.1-1.39), 1.22 for subjects with less than high school education (CI 1.04-1.42), 1.23 for low physical activity (CI 1.09-1.38) 1.594 cigarette smoking (CI 1.39-1.83), 1.3 for being overweight (CI 1.12-1.52), 1.4 for hypertension (CI 1.24-1.59), 1.85 for diabetes (CI 1.51-2.28), 1.464 for valvular heart disease (CI 1.17-1.82) and 8.11 for coronary artery disease (CI 6.95-9.46)(58).

A population-based case-control study in Olmsted County which made adjustments for the change in prevalence of risk factors over the follow-up period identified coronary artery disease as the most important risk factor for the development of heart failure with an odds ratio of 3.05 (CI 2.36-3.95). This was followed by hypertension (OR 1.44, CI 1.18-1.76), diabetes mellitus (OR 2.65, CI 1.98-3.54), obesity (OR 2.00, CI 1.57-2.55) and smoking (OR 1.37, CI 1.13-1.68)(59).

There are regional differences in risk factors for the development of heart failure. The INTER-CHF study was a prospective study which included 108 centers in 16 countries from 2012 the 2014 and recruited 5813 patients with heart failure. It found significant variation in risk factors for the development of heart failure in Africa, Asia, Middle East

and South America. In Asia, 59% of the subjects were hypertensive, 27.9% were diabetic, 26.1% were dyslipidemic, 31.1% were smokers, 40.4% had valvular heart disease, 10.2% had a prior stroke and 22.3% of patients had a previous myocardial infarction. In contrast, in the subjects from the Middle East, 68.4% were hypertensive, 56% were diabetic, 57.1% were dyslipidemic, 22.6% were smokers, 48% had valvular heart disease, 3.3% of patients had a prior stroke and 19.1% of patients had a history of previous myocardial infarction. In Africa, the respective percentages were 61.6%, 17.1%, 21.1%, 14.7%, 57%, 5% and 8.2%(36).

The same conclusion was drawn from a systematic review and pooled analysis of 37 studies which included patients from 40 countries and analyzed data from studies published from 1980 -2008. Ischemic heart disease was a risk factor for more than 50% of patients from Europe, for 40% of patients from East Asia and only for <10% of patients in sub-Saharan Africa. Rheumatic heart disease was most common in East Asia (34%) and sub-Saharan Africa (14%)(60). These studies clearly established that the risk factors for the development of heart failure vary from one geographical location to another.

Even within the same region, the risk factors for the development of heart failure may vary according to race. The Health ABC study included 3075 men and women from the Moreover, in our study only 60% of the patients were patients with denovo heart failure. This compounds the problem as there can be many admissions for decompensated heart failure over a year community and found that the population attributable risk (PAR) of coronary artery disease was 23.9% for the white population and 29.5% for the black

population and PAR of hypertension was 21.3% for the white population and 30.1% for the black population. 67.8% of heart failure was attributed to modifiable risk factors among the black population while only 48.9% was attributable to the same among the white population(61).

4.8.2 Indian Data for Risk Factors for Development of Heart Failure

Similar to other aspects of heart failure, there is a paucity of data of risk factors for the development of heart failure from the Indian subcontinent. There are very few studies that have looked into this issue.

Harikrishnan et al have identified ischemic cardiomyopathy (22%) and dilated cardiomyopathy (20%) as the most common risk factors for the development of heart failure. This was followed by rheumatic heart disease (13%), infective endocarditis and other causes. It was interesting to note that rheumatic heart disease and infective endocarditis are much more common causes of heart failure in India when compared to western countries, according to the study(62).

This trend was also found in a study from rural Trivandrum which included patients between the ages of 50 -80 years from January 2011 to December 2012. 169 patients were analyzed and the most common cause of heart failure was coronary artery disease (43.7%), rheumatic heart disease (26.6%), dilated cardiomyopathy (11.83%) and hypertension (10.5%)(51).

In the INDUS study the most common cause of heart failure was rheumatic heart disease (51.96%), followed by ischemic heart disease (16.67%), hypertension (9.8%), dilated cardiomyopathy (9.8%), congenital heart disease (5.8%) and others (5.8%). This shows that even within the Indian subcontinent there are regional differences between risk factors for the development of heart failure.

The investigators of the AFAR study compared their data with the OPTIMIZE registry, which is composed of subjects from the west. The percentage of patients with ischemic cardiomyopathy was 53.9% in the AFAR study and 46% in the OPTIMIZE registry. The percentage of patients with rheumatic heart disease was 10.8% in the AFAR study while none of the patients in the OPTIMIZE registry had rheumatic heart disease. This clearly shows that rheumatic heart disease is a cause of heart failure predominantly in developing countries like India. On the other hand, only 1.5% of patients in the AFAR study had hypertension, as compared to 23% of patients in the OPTIMIZE registry. This study highlights the differences in risk factors for the development of heart failure between India and the rest of the world(52).

A prospective single center study from Trivandrum which looked at 287 patients with ischemic and non-ischemic heart failure identified that diabetes mellitus was present in 73.9% of patients with ischemic heart failure while only 53.3% of the patients with non-ischemic heart failure at the same disease. Similarly, hypertension was also more common in ischemic heart failure (65%) when compared to non-ischemic heart failure (46.7%).

Similar trends were found in chronic renal disease (50.6% versus 29.9% in ischemic and non-ischemic heart failure respectively), dyslipidemia (72.8% versus 41.1%) and smoking (45% versus 27.1%)(53). Hence there are differences in the risk factors for the development of heart failure within various subgroups.

The Trivandrum Heart Failure Registry (THFR) is one of the largest cohorts of patients with heart failure in India. Ischemic heart disease topped the list of risk factors for the development of heart failure (71.87%), followed by dilated cardiomyopathy (12.95%), rheumatic heart disease (7.18%), hypertrophic cardiomyopathy (2.24%), hypertension (0.91%) and others (4.15%). 15.6% of patients were current tobacco users and 24.98% of patients have used tobacco sometime in the past. 19.42% of patients were current alcohol uses, while 1.74% of patients have consumed alcohol in the past. Other comorbidities that were prevalent in this cohort were diabetes mellitus (54.94%), atrial fibrillation (14.69%), chronic kidney disease (17.93%), chronic obstructive pulmonary disease (15.4%) and history of stroke (6.22%)(17). Although it is difficult to differentiate association from causation, it is now known that heart failure is the end result of a variety of pathogenic mechanisms arising from various disease processes.

Between the INTERCHF study and the Trivandrum heart failure registry, it is clear that coronary artery disease as the most common cause of heart failure in our country.(63)

Knowing the risk factors for development of heart failure and the pathogenic mechanisms will help in developing strategies aimed at this specific risk factors and developing drugs which halt or even reverse the progression of heart failure. The Kerala Heart Failure registry that was described above aims to ascertain the risk factors for the development of

heart failure. Since this study aims to include a large sample size of 7500 patients, it is hoped that clear data regarding risk factors for the development of heart failure can be gathered with this study. The study will also try to develop an Indian heart failure mortality risk score which will help prognosticate patients with heart failure(64).

The data from PURE study was analyzed to assess the information about availability and costs of cardiovascular disease medications (aspirin, β blockers, ACE inhibitors and statins). In India, the availability of four cardiovascular medications was 89% in urban and 81% in rural communities. In India, cardiovascular disease medications were potentially unaffordable for 59% of households(65). Reduced access to medications for chronic heart failure may predispose to episodes of decompensation which will ultimately increase mortality.

A prospective cohort study was done in an urban setup in Mumbai to assess the influence of education, which is a marker of socioeconomic status on cardiovascular disease (CVD) mortality. The study showed that as compared to illiterate men, age-adjusted Hazard ratio (HR) for CVD mortality in primary school, middle school, secondary school and college going men was 1.36, 1.27, 1.01 and 0.88 respectively ($p < 0.05$) while in women the HRs were 0.69, 0.55, 1.04 and 0.74, respectively ($p > 0.05$). Cardiovascular disease mortality was higher in the men with low educational status, while association among the women was not seen. Hence education should be considered as an important tool to prevent cardiovascular disease mortality(66).

4.9 Models to Predict Outcome in Heart Failure

Various models have been developed to predict the outcome of heart failure. These predictive models have certain advantages. They allow patients and families have a realistic expectation of the prognosis, allows hospitals to allocate resources properly, allows proper selection of treatment modality and helps in accurate communication between patient and treating team. There are also some pitfalls for these models. A model developed for one population may not be useful in another population. As newer therapies come up, the outcome predicted by an older model may become invalid. Nevertheless, there have been various attempts to develop such models.

One such model is the EFFECT model. It was derived from a cohort of 2524 patients from the EFFECT study in Ontario, Canada from 1999 to 2001. This model was validated prospectively in 1407 patients presenting from 1997 to 1999(67). In this model, the clinical characteristics of the patients were used to derive a score that predicted the 30-day and 1-year mortality.

Another such predictor model is the heart failure survival score which was derived from a cohort of 268 patients with NYHA stage III and stage IV symptoms who were waiting for a cardiac transplant. (68) However, one pitfall is that it is outdated in the current times as it was developed in 1997. Also, it was developed using data from patients with advanced heart disease waiting for a transplant. Due to these two reasons, it may not be applicable to the general population.

The Seattle Heart Failure model was derived from the PRAISE trial which had 1125 patients with heart failure. (69). This model is different from the others in that the patients included in the study to derive the model had symptoms ranging from NYHA class I to class IV. Also, the model has been extensively validated in 5 prospective cohort studies. The Seattle Heart Failure model gives 1, 2 and 3-year mortality and survival. (70)

The most recent addition to such prediction models comes from Spain. The investigators in the study derived a model to predict 30-day mortality of patients admitted with acute decompensated heart failure to the emergency department. This model was created using data from 34 hospitals in Spain and included 4597 patients admitted to the emergency department of May 2009 to December 2011. This model, called the MEESSI-AHF risk model is available as a web-based calculator and helps to identify low-risk patients (with 30-day mortality < 2%) can be discharged directly from the emergency department and very high risk patients (30-day mortality > 2%) who will clearly benefit from admission(71).

A recent study from Mumbai, India, identified a novel biomarker called Soluble suppression of tumorigenicity-2 (sST2) as a strong predictor of adverse outcome at 1-year and 2-year follow-up(72). Till date, there have not been any risk stratification models tailor-made for the Indian population. Traditionally, the predictions made by risk stratification models, which have been derived from the western population, have been extrapolated to our Indian population. However, none of these models has been validated

in an Indian population. Hence it remains to be seen whether the prediction made by these models hold true for our population.

4.10 Economic Impact of Heart Failure

Heart failure is a costly disease, both from an individual viewpoint and a public health viewpoint.

According to the one study from the United States of America, heart failure costs 30.7 billion dollars every year. (73) The estimated lifetime cost incurred by an individual after a diagnosis of heart failure has been made has been estimated using western data at $109 541 (95% confidence interval, $100 335 to 118 946) per person(74).

Data from the ND Health (National Data Corporation, Atlanta, GA) database which had billing data for 496534 patients from 300 hospitals has estimated that the cost of one admission for heart failure was 18,667 dollars.(75)

There is no estimate for DALY (Disability-Adjusted Life Years) for heart failure from India, although there is data for coronary heart disease. DALY lost to coronary heart disease was estimated to be 7.7 million and 5.6 million in men and women respectively in 2008. This is predicted to increase to 14.1 million and 7.7 million respectively in 2020. (76)

The Prospective Urban Rural Epidemiology Study (PURE) collected data from 424,921 patients from both urban and rural background from 17 countries. From India, recruitment was done from 2003 to 2007 and a total of 58175 individuals from the urban population and 58579 individuals from the rural population were recruited(77). In an analysis of the PURE study data, the four cardiovascular disease medicines were potentially unaffordable for 0·14% of households in high-income countries (14 of 9934 households), 25% of upper-middle-income countries (6299 of 24 776), 33% of lower-middle-income countries (13 253 of 40 023), 60% of low-income countries excluding India (1976 of 3312), and 59% households in India (9939 of 16874). In low-income and middle-income countries, patients with the previous cardiovascular disease were less likely to use all four medicines if fewer than four were available (odds ratio [OR] 0·16, 95% CI 0·04-0·57)(65).

One may ask why there is so much variation between the prevalence, incidence and mortality data between the various studies. The reasons are numerous. One of them is the absence of a standard definition of heart failure. As mentioned before, heart failure is a clinical diagnosis. Hence it is difficult to have a standardized inclusion criterion to include patients with heart failure into studies. Previous studies had included patients with signs and symptoms of heart failure and an echocardiogram showing reduced systolic function. However, now it is known that there can be heart failure and normal ejection fraction (heart failure with preserved ejection fraction). Therefore, what set of clinical symptoms and signs can be used to include patients into studies looking at heart failure is another challenge, one that will be discussed below. Moreover, studies have identified patients with

echocardiographic evidence of systolic dysfunction who will go on to develop symptoms and signs of heart failure in the future. Hence the diagnosis of heart failure is an evolving one. This is the global picture. There is a big lacuna when it comes to Indian data, an issue which this study tries to tackle.

4.11 Justification for this Study

Heart Failure is a disease with a high global burden, the prevalence of which is increasing. Most of the data in heart failure are from the west. There is a lacuna in our knowledge of incidence, prevalence, risk factors and outcome of heart failure in Indian population. Generating this data will help us plan early interventions to tackle risk factors so that heart failure can be prevented in the community. Data on the patient outcome will help us know if interventions in the future are actually reducing the burden of the disease. We also need to know if the outcome prediction models developed using western data holds true in our Indian population. Last, but not least, in a resource-poor country like India it is important to gauge the economic impact of this disease.

5 Methods

5.1 Institutional Review Board Approval

The study protocol was approved by the Institutional Review Board in December 2016 [IRB Min No. 10416 dated 05.12.2016] (IRB approval letter in Annexure 11.1.2). The study was funded by the Hospital research fund-Fluid research grant number 22 Z 109 (Fluid Grant approval Annexure number 11.1.3).

5.2 Duration of the study

The recruitment of participants took place between January 2014 and December 2017. Patients' recruitment between January 2014 to December 2016 was retrospective while the recruitment for the rest was prospective. Irrespective of the recruitment, all patients were followed up prospectively till June 2018.

5.3 Study design

This study was a prospective observational cohort study of patients admitted with clinically diagnosed acute decompensated heart failure. STROBE checklist was used for designing the study and reporting the outcome (Annexure 11.6)

5.4 Setting

This study was conducted in the Christian Medical College and Hospital, a 2695 bedded University Teaching Institute in south India. It attracts patients from Southern as well as North East India. The patients admitted under the general medical units were included in the study.

Patients presenting with acute decompensated heart failure are seen in the Emergency Department (ED) or outpatient clinics. Those seen under the ED are seen by internal medicine. Patients are admitted to the intensive care unit or general ward. While in the ward they may be seen by a cardiologist on consultation.

5.5 Study participants

We recruited patients admitted with a diagnosis of acute decompensated heart failure. The following were the inclusion and exclusion criteria.

Inclusion Criteria (all criteria had to be satisfied):

- Patients admitted as in-patients who satisfy Boston Clinical Criteria for definite heart failure OR patients admitted to general medicine unit-2 with ‘Heart Failure’, ‘Cardiac Failure’ or ‘Biventricular Failure’ in discharge diagnosis.
- Age >18 years of age
- Patients who are willing for follow up
- Patients who are willing to give informed consent

All eligible patients were recruited consecutively during the study period.

5.6 Diagnostic Criteria

We used the Boston Criteria for diagnosis of acute decompensated heart failure. Patients are given a score based on history, physical examination and chest radiograph. A total score of 8-12 is considered as 'definite heart failure'.

Figure 2 Boston Criteria for diagnosis of acute decompensated heart failure

History:
○ Rest dyspnea (4pts) ○ Orthopnea (4pts) ○ Paroxysmal nocturnal dyspnea (3 pts) ○ Dyspnea on walking on level (2pts) ○ Dyspnea on climbing (1pt)
Physical Examination:
○ Heart rate abnormality (1–2pts) ○ Jugular venous pressure elevation (1–2 pts) ○ Lung crackles (1–2pts) ○ Wheezing (3 pts) ○ Third heart sound (3 pts)
Chest Radiograph:
○ Alveolar pulmonary edema (4 pts) ○ Interstitial pulmonary edema (3 pts) ○ Bilateral pleural effusions (3 pts)

○ Cardiothoracic ratio ≥0.50 (3 pts) ○ Upper-zone flow redistribution (2 pts)
Definite HEART FAILURE 8–12 pts, possible 5–7pts, unlikely 4 pts or less

5.7 Consent for participation

All patients who fulfilled the inclusion criteria were provided with the study Information sheet (Annexure 11.4). After they had read the same and the study explained, those willing gave written informed consent. This was obtained in the regional language that the patient was conversant.

5.8 Outcome

5.8.1 Primary Outcome:

a. All-cause mortality

5.8.2 Secondary Outcomes:

a. Median survival time of patients admitted with acute decompensated heart failure to our hospital.

b. Predictors of mortality

c. Comparison of actual outcome with outcome predicted by Seattle heart failure model

d. Costs associated with admission

5.9 Exposure

The effect of baseline characteristics, presenting symptoms and signs, vital signs, comorbidities, diet, laboratory investigations, treatment received, cause of decompensation and adherence to guideline-based therapy on mortality and survival time was investigated.

5.10 Confounders

a. Co-morbidities like diabetes, hypertension, dyslipidemia, smoking, obesity

b. Pre-existing cardiac disease

c. Anemia

d. Renal failure

5.11 Bias

To reduce bias, we used a standardized clinical criterion for the diagnosis of heart failure. We collected as much data on confounders and potential effect modifiers as possible. Assurance of confidentiality was given to the patient and relatives to get a socially acceptable response. The questionnaire was administered by the principal investigator to reduce interviewers bias. The outcome of death was confirmed through hospital records or telephonic confirmation by the principal investigator with the immediate family members.

5.12 Sample size calculation

The required sample size to show mortality of about 17% (Ref: European Journal of Heart Failure (2015) 17, 794–800) was found to be 217 patients with 5% precision and 95% confidence limits.

Formula:

$$n = \frac{{Z_{\alpha/2}}^2 * 2 * PQ}{d^2}$$

Ref: Lemeshow S, Hosmer DW, Klar J, Lwanga SK. Adequacy of Sample Size in Health Studies. John Wiley and Sons, 1990.

P=proportion

Q=1-p

D=precision

Confidence interval-95%

Single Proportion - Absolute Precision

Expected proportion	0.17	0.17	0.17	0.17	0.17
Precision (%)	5	5.5	6	6.5	7.5
Sample Size	217	179	151	128	96
Desired Confidence level (1-alpha)	95	95	95	95	95

With 5% precision and 95% Confidence Interval, the sample size was217.

We assumed a 20% drop out rate, and arrived at a sample size of 271.

5.13 Data sources and measurement

The data was collected from the patient or patient's relative if the patient was unable to furnish the necessary information by direct interview at the time of enrolment using the standard Clinical Research Form (CRF) designed for this study (Annexure 11.3) by the principal investigator. Some of the required data required was collected from the electronic health records of the hospital (Clinical Workstation, Version; Christian

Medical College) Department of Computerized Hospital Information Processing Services).

5.14 Parameters

Baseline demographics data included age, gender, hospital number, source of admission, date of admission and discharge, duration of hospitalization, education, occupation, socioeconomic class- Modified Kuppusamy socioeconomic scale. The clinical presentation data included the onset and duration of chest pain or breathlessness, NYHA class, sweating etc. and relevant physical examination data were recorded. Data related to the time of hospitalization and time of appropriate intervention was assessed from the emergency medical records. Data on co-morbid illness diabetes mellitus, hypertension, coronary artery disease, dyslipidemia, previous acute coronary syndrome were noted.

IPAQ (International Physical Activity Questionnaire score), smoking, alcohol consumption data along with dietary data (including oil consumption) were also collected. Relevant prior medication history including antihypertensive, diabetic medications, anti-platelet and statins were noted. All relevant investigations including ECG, Cardiac enzymes, ECHO cardiogram reports, medications given for the current episode were collected. Discharge medications and precipitant for heart failure were recorded. The participants were followed up through mobile phone at six months of the date of admission. If they were alive they were questioned on physical activity status (IPAQ score) and Minnesota Living with Heart Failure Questionnaire (MLHFQ) was administered.

5.15 Data analysis and statistical methods

Data entry was done by the principal investigator from the CRF to in Epidata version3.1. This data was then exported to SPSS for windows version 25, IBM Corporation. All statistical analysis was done by Dr. L. Jeyaseelan (Professor and Head, Department of Biostatistics, Christian Medical College, Vellore) and Mrs. Ambily Nadaraj (Department of Biostatistics, Christian Medical College, Vellore).

Data were cleaned by excluding outliers and other data entry mistakes by plotting histogram and boxplot.

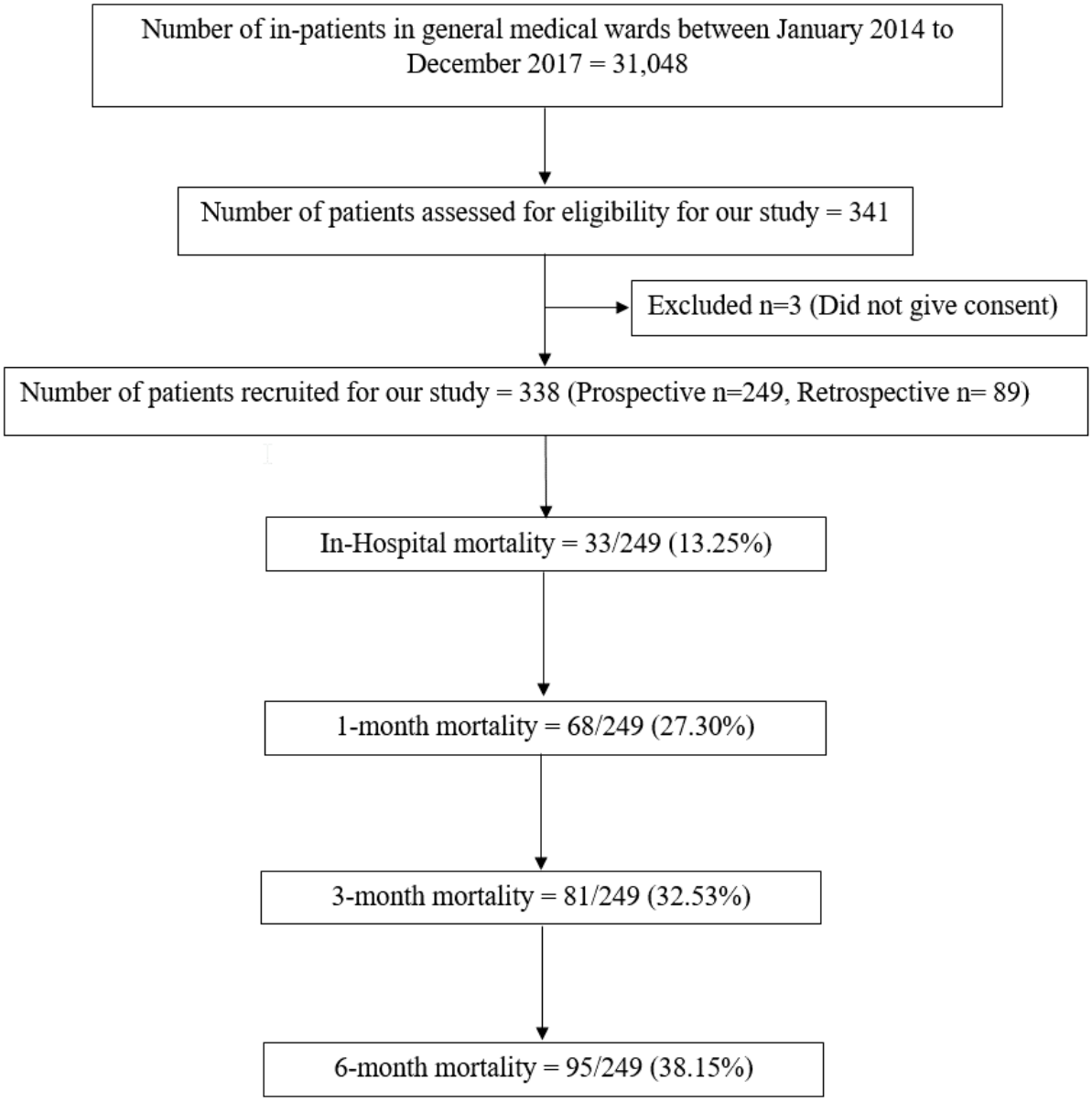
All baseline data that were categorical were described using numbers and percentages. Continuous data were described using mean and standard deviation. Person time was calculated in months for all the patients and the incidence density with 95% confidence interval was calculated.

Time to event data was performed by using Kaplan-Meier estimate for both prospective and retrospective data. Kaplan-Meier curve was constructed for combined data to find the mean survival time. Cross tabulation was done for categorical variables with mortality as the outcome variable. Unadjusted analyses were done using Cox-proportional hazard regression analyses with one risk factor at a time. The significant variable at 10% level from the unadjusted analysis were then included (as adjusted) using Cox-proportional hazard regression analyses.

6 Results

6.1 STROBE diagram

Figure 3 Strobe diagram



A total of 341 patients were assessed for eligibility for this study. Of these 3 were excluded as they did not give consent. A total of 338 patients were included in the final analysis. Of the 249 patients recruited prospectively, 21 patients were lost to follow up.

6.2 Baseline Characteristics

6.2.1 **Demographic details**

Table 4 Demographic details

Characteristic	**No. (%)**
Gender (n= 338)	
Male	171 (50.6)
Female	167 (49.4)
Age (mean +/- SD)	58.8 +/- 14.28
Marital status (n=249)	
Married	246 (99.2)
Unmarried	2 (0.8)
Education of head (n= 249)	
Illiterate	14 (5.6)
Primary/Middle	87 (34.9)
High / Intermediate	123 (49.9)
Graduate/Post graduate	25 (10.0)
Occupation of head (n= 249)	
Unemployed / Unskilled/ Semi-skilled	109 (43.8)
Skilled/ Clerical / Shop-owner / farmer	101 (14.6)

Semi-profession/ Profession	39 (15.7)
Family income per month (n= 249)	
Less than ₹ 6477	40 (16.1)
₹ 6478 - ₹ 10795	51(2.06)
₹ 10796 - ₹ 21591	127 (51.2)
Above ₹ 21592	30 (12.1)
Kuppuswamy Class (n= 249)	
Upper/ Upper Middle	61 (24.5)
Lower Middle / Upper Lower	178(71.4)
Lower	10(4)
Duration of Hospital stay (mean +/- SD), (median)	8.79 +/- 6.5, (8)
Days in the ward (mean +/- SD), (median)	8.5 +/- 6.02, (7)
Days in the I.C.U(mean +/- SD)	1.01 +/- 2.46
De novo heart failure(n=338)	204(60.4)
Baseline effort tolerance in meters (mean +/- SD)	439.76 +/- 768.36
NYHA† Class at admission(n=338)	
I	3(0.9)
II	6(1.8)
III	39(11.5)
IV	290(85.8)
Height in cm (mean +/- SD)	162.58 +/- 12.40
Weight in kg (mean +/- SD)	67.7 +/- 16.14
BMI (mean +/- SD), (median)	25.15 +/- 5.05, (24.85)

Underweight (<18.5)	22(9.6)
Normal (18.5-22.9)	56(24.3)
Overweight (23-34.9)	38(16.5)
Pre-obese (25-29.9)	84(36.5)
Obese type 1 (30-40)	26(11.3)
Obese type 2(morbid obese) (40.1-50)	4(1.7)
Obese type 3(super obese) (>50)	0(0)
Hip to Waist Ratio (mean +/- SD)	0.98 +/- 0.05
Baseline IPAQ* Score(n=249)	
Continuous Score (mean +/- SD), in MET-minute/week	2788.76 +/- 3348.78
Categorical Score	
Inactive	52(20.9)
Minimally Active	128(51.4)
HEPA Active	69(27.7)

†NYHA: New York Heart Association; *IPAQ - International Physical Activity Questionnaire. Expressed as Continuous Score or Categorical Score. Continuous Score: This is expressed as MET-min per week: MET level x minutes of activity x events per week.(*The Metabolic Equivalent of Task (MET), or simply metabolic equivalent, is a physiological measure expressing the energy cost of physical activities and is defined as the ratio of metabolic rate (and therefore the rate of energy consumption) during a specific physical activity to a reference metabolic rate, set by convention to 3.5 ml O2·kg−1·min−1).*Categorical Scores: Category 1: Low - This is the lowest level of physical activity. Those individuals who not meet criteria for categories 2 or 3 are considered low/inactive; Category 2: Moderate - Any one of the following 3 criteria: 3 or more days of vigorous activity of at least 20 minutes per day OR 5 or more days of moderate-intensity activity or walking of at least 30 minutes per day OR 5 or more days of any combination of walking, moderate-intensity or vigorous intensity activities achieving a minimum of at least 600 MET-min/week. Category 3: HEPA (health-enhancing physical activity) Active- Any one of the following 2 criteria: Vigorous-intensity activity on at least 3 days and accumulating at least 1500 MET-minutes/ week OR 7 or more days of any combination of walking, moderate-intensity or vigorous intensity activities achieving a minimum of at least 3000 MET-minutes/week.

50.6% of the participants were males. The mean age of the participant was 58.8 +/- 14.28. 99.2% of the participants were married. Maximum number of participants belong to the lower middle/upper lower Kuppusamy class (71.4%). De novo heart failure was seen in 60.4%. The mean duration of hospital stay was 8.79 +/- 6.5 days which included 8.5 +/- 6.02 days in the ward and 1.01 +/- 2.46 days in the ICU. The mean Baseline effort tolerance was 439.76 +/- 768.36 meters. The mean height and weight were 162.58 +/- 12.40 cm and 67.7 +/- 16.14 kg respectively. The mean BMI was 25.15 +/- 5.05 and hip to waist ratio was 0.98 +/- 0.05.

The participants had a mean continuous IPAQ score of 2788.76 +/- 3348.78. 51.4% were minimally active, 27.7% were HEPA active and 20.9% were inactive.

6.2.2 Comorbidities

Table 5 Comorbidities

Comorbidities(n=338)	**No. (%)**
Diabetes Mellitus	198(58.6)
Hypertension	188(55.6)
Dyslipidemia	82(24.3)
Previous Acute Coronary Syndrome	74(21.9)
Previously Diagnosed Heart Failure	134(39.6)
Ischemic Heart Disease	103/338 (30.5), [103/134 (76.9)]
Rheumatic Heart Disease	28/338 (8.3), [28/134 (20.9)]
Dilated Cardiomyopathy	15/338 (4.4), [15/134 (11.2)]
Others	1/338(0.3), [1/134(0.7)]
Chronic Kidney Disease	69(20.4)
Chronic Liver Disease	9(2.7)
Past Stroke/Transient Ischemic Attack	21(6.2)
Peripheral Arterial Occlusive Disease	8(2.4)
Hypothyroidism	28(8.3)
Past Tuberculosis	15(4.4)
Atrial Fibrillation(n=249)	22(8.8%)
Human Immunodeficiency Virus (HIV)	2(0.6)
infection	12(3.6)
Bronchial Asthma	42(12.4)
Chronic Obstructive Pulmonary Disease(COPD)	26(7.7)

Past Admission for Pneumonia	1(0.3)
Pregnant at admission	5(1.5)
Past treatment for Cancer	3(0.9)
Cardiotoxic Chemotherapy	3(0.9)
Radiation Therapy	
Alcohol Consumption	48(14.2)
Smoking	56(16.6)
Tobacco Chewing	1(0.3)

58.6 % of the participants were diabetic. 55.6% had hypertension, 24.3% were dyslipidemic, 39.6% had previously diagnosed heart failure, and 21.9% had a previous acute coronary syndrome. Chronic kidney disease was present in 20.4% of participants.14.2% of participants were alcohol consumers and 16.6% were smokers.

6.2.3 Dietary Habits

Table 6 Dietary Habits

Dietary Habits(n=249)	
Vegetarian	24(9.6)
Non-Vegetarian	225(90.4)
Egg	
Never / Once a month	59(23.7)
Less than 3 times a month	148(59.4)
More than 3 times / Daily	42(16.9)
Milk	
Never/ Once a month	24(9.6)
Less than 3 times a month	82(32.9)
More than 3 times / Daily	143(57.4)
Red meat (Beef, Mutton)	
Never / Once a month	112(45.0)
Less than 3 times a month	112(45.0)
More than 3 times / Daily	25(10.0)
White meat (Chicken)	
Never / Once a month	86(34.5)
Less than 3 times a month	134(53.8)
More than 3 times / Daily	29(11.6)

Shell fish (Prawn, crab, Lobster)	
Never / Once a month	145(58.2)
Less than 3 times a month	91(36.5)
More than 3 times / Daily	13(5.2)
Butter / Ghee	
Never / Once a month	142(57.0)
Less than 3 times a month	91(36.5)
More than 3 times / Daily	16(6.4)
Fried Snacks (Vada, Bonda, Puff)	
Never / Once a month	85(34.1)
Less than 3 times a month	112(45.0)
More than 3 times / Daily	52(20.9)
Oil consumption	
Soybean oil	1(0.4)
Safflower oil	2(0.8)
Coconut oil	4(1.6)
Sunflower oil	224(90.0)
Cotton seed oil	4(1.6)
Groundnut oil	14(5.6)
Quantity of oil used per day (mean +/-SD) in ml	21.41 +/- 16.05

90.4% were non-vegetarian. 90% of participants used sunflower oil for cooking.

6.2.4 Presenting Symptoms and Signs

Table 7 Presenting Symptoms and Signs

Clinical Features	**No. (%)**
Presenting Complaints(n=338)	
Chest Pain	89(36.3)
Dyspnea	317(93.8)
Cough	163(48.2)
Palpitations	86(25.4)
Ankle edema	177(52.4)
Sweating	67(19.8)
Syncope	12(3.6)
Orthopnea	222(65.7)
PND	48(14.2)
Fatigue	146(43.2)
Fever	100(29.6)
Vital Signs (mean +/- SD)	
Pulse rate	106 .69 ± 24.41
Systolic Blood Pressure	130.29 ± 38.95
Diastolic Blood Pressure	76.96 ± 21.67
Respiratory rate	31.48 ± 8.29
Saturation at admission	87.80 ± 11.74
GCS	
3-10	12(3.6)

11-14	4(1.2)
15	322(95.3)
Physical Examination	
Pallor	129(38.2)
Icterus	16(4.7)
Clubbing	5(1.5)
Pedal Edema	198(58.6)
Elevated JVP	230(68.0)
S3 heard	53(15.7)
S4 heard	6(1.8)
Crepitations	294(87.0)
Hepatomegaly	42(12.4)
Shifting Dullness	23(6.8)

The most common presenting complaint was dyspnea (93.8%) followed by orthopnea (65.7%), ankle edema (52.4%), cough (48.2%), fatigue (43.2%) and chest pain (36.3%). 87% of participants and crepitations on auscultation. 68% had an elevated JVP and 15.6% had pedal edema.

6.2.5 Investigations

Table 8 Investigations

Investigation	**No. (%)**
Lab investigations (mean +/- SD)	
Hemoglobin[g/dl]	10.76 +/- 2.7
Creatinine[mg%]	1.73 +/- 1.8
Urea[mg%]	57.15 +/-58.6
Troponin [pg/ml]	
Admission	164.97 +/-428.3
6-hour	236.52 +/- 503.1
CK-MB[1][ng/ml]	
Admission	7.09 +/- 10.3
6-hour	8.36 +/-11.0
Latest Hba1C [%]	7.42 +/- 2.0
Total Cholesterol [mg%]	146.78 +/-52.7
Triglycerides [mg%]	132.30 +/- 80.6
High Density Lipoprotein (HDL) [mg%]	37.04 +/- 14.2
Low Density Lipoprotein (LDL) [mg%]	90.02 +/- 43.8
Sodium [m mol/L]	132.84 +/- 6.9
Potassium [m mol/L]	4.24 +/- 0.8
Uric Acid[mg%]	8.36 +/- 8.3
NTproBNP[2] [pg/ml]	11775.18 +/- 10867.2

Serum Osmolarity [m mol/ kg]	296 +/- 22.3
pH	7.36 +/- 0.1
Lactate [m mol/L]	2.7 +/- 2.7
Electrocardiography (ECG) findings(n=329)	
Rate (mean +/- SD)	100.92 +/- 25.6
ST Elevation	17(5)
ST Depression	44(13)
Left Ventricular Hypertrophy (LVH)	54(16.0)
Arrythmia	40(11.8)
Chest X-ray Findings(n=338)	
Pulmonary Edema	211(62.5)
Pleural Effusion	103(30.5)
Cardiomegaly	286(84.6)
Echocardiogram (n=289)	
Ejection Fraction	
HFrEF[3] (LVEF[4]<40%)	113(39.1)
HFmrEF[5](LVEF 40-49%)	61(21.1)
HFpEF[6](LVEF >=50%)	115(39.7)
LVEF (mean +/- SD)	44.01 +/- 12.4
TAPSE[7] in mm (mean +/- SD)	19.13 +/- 6.4
E/A[8](mean +/- SD)	1.23 +/- 0.8

[1]CK-MB: Creatinine Kinase- Muscle/Brain, [2] NTproBNP: N-terminal pro b-type natriuretic peptide, [3]HFrEF: Heart Failure with Reduced Ejection Fraction, Left Ventricular Ejection Fraction<40%, [4]LVEF: Left Ventricular Ejection Fraction, [5]HFmrEF: Heart Failure with mid-range Reduced Ejection Fraction, Left Ventricular Ejection Fraction 40-49%, [6]HFpEF: Heart Failure with Preserved Ejection Fraction, Left Ventricular Ejection Fraction>50%, [8]TAPSE:Tricuspid Annular Plane Systolic Excursion, Indicator of right ventricular function, Normal range 15-20mm, E/A ratio: Represents the ratio of peak velocity blood flow from gravity in early diastole (the E wave) to peak velocity flow in late diastole

caused by atrial contraction (the A wave). Normal values are age dependent, 16-20 years:1.88 ± 0.4, 21-40 years:1.53 ± 0.40, 41-60 years :1.28 ± 0.25 (0.78-1.78), >60years: 0.96 ± 0.18 (0.6-1.32)

16% of participants had left ventricular hypertrophy on ECG while 11.8% had an arrythmia at presentation.

Cardiomegaly was the most common x-ray findings (84.6%). 62.5 % of participants had pulmonary edema and 30.5% and pleural effusion on x-ray.

33.4% of participants had HFrEF, 18% had HFmrEF and 34% had HFpEF.

6.2.6 Treatment Details

Table 9 Treatment Details

Treatment(n=249)	**No. (%)**
Ventilation	
Non-Invasive	67(26.9)
Duration (mean +/- SD), days	1.66 +/- 1.0
Invasive	18(7.2)
Duration (mean +/- SD), days	5.56 +/- 3.0
Drugs at admission	
ACE inhibitors	83(33.3)
Angiotensin Receptor Blockers	26(10.4)
Aldosterone Antagonists	43(17.3)
Beta Blockers	140(56.2)
Carvedilol	39/249(15.6), [39/140(27.8)]
Metoprolol	76/249 (30.5), [76/140(54.2)]
Bisoprolol	20/249 (8), [20/140(14.3)]
Others	5/249 (2), [5/140(3.5)]
Diuretic	198(79.5)
Furosemide	160/249 (64.2), [160/198(80.8)]
Torsemide	38/249 (15.3), [38/198(19.2)]
Calcium Channel Blockers	61(24.5)
Digoxin	61(24.5)

Nitrate	76(30.5)
Hydralazine	60(24.1)
Alpha Blocker	19(7.6)
Antiplatelets	167(67)
Aspirin	73/249(29.3), [73/167(43.7)]
Clopidogrel	3/249(1.2), [3/167(1.7)
Both	91/249(36.5), [91/167(54.5)]
Statin	160(64.2)
Warfarin	16(6.4)
Vaccination	18(7.2)

Non-invasive ventilation was required in 26.9% while invasive ventilation was required in 7.2% of participants. The mean duration of non-invasive ventilation was 1.66 +/- 1 day while it was 5.56 +/- 3 days for invasive ventilation.

79.5 % of the participants with acute decompensated heart failure received diuretic therapy making it the most commonly prescribed medication for the same. 56.2% received beta-blockers, 33.3% received ACE inhibitors, 10.4% received angiotensin receptor blockers and 17.3% received aldosterone antagonists. 24.5% of participants received calcium channel blockers and digoxin. Nitrates and hydralazine were prescribed to 30.5% and 24.1% of participants respectively.

67% of participants received antiplatelets and 64.2% received statins prior to discharge.

7.2% of participants received influenza and pneumococcal vaccination prior to discharge.

6.2.7 Discharge Medications

Table 10 Discharge Medications

Treatment(n=294)	**No. (%)**
Drugs	
ACE inhibitors	117(39.8)
Angiotensin Receptor Blockers	26(8.8)
Aldosterone Antagonists	71(24.1)
Beta Blockers	175(59.5)
Carvedilol	55/294(18.7), [55/175(31.4)]
Metoprolol	92/294(31.3). [92/175(52.6)]
Bisoprolol	23/294(7.8), [23/175(13.1)]
Others	5/294(1.7), [5/175(2.8)]
Diuretic	198(67.3)
Furosemide	138/294 (46.9), [138/198(69.7)]
Torsemide	58/294 (19.72), [58/198(29.3)]
Calcium Channel Blockers	56(19.0)
Digoxin	49(16.7)
Nitrate	105(35.7)
Hydralazine	78(26.5)
Alpha Blocker	21(7.1)
Antiplatelets	214(72.8)
Aspirin	117/294 (39.8), [117/214(54.7)]

Clopidogrel	11/294 (3.7), [11/214(5.1)]
Both	86/294 (29.2), [86/214(40.2)]
Statin	213(72.5)
Warfarin	29(9.9)
Guideline Based Therapy*	134(45.6)

*Guideline-based therapy is defined as being prescribed a beta blocker along with either an angiotensin converting enzyme inhibitor (ACEI), angiotensin receptor blocker (ARB) or both isosorbide and hydralazine, regardless of ejection fraction on echocardiogram, at the time of discharge

The time of discharge, 67.3% were prescribed diuretics, 59.5% were prescribed beta-blockers, 39.8% were given ACE inhibitors, 8.8% were given angiotensin receptor blockers, 24.1% were given aldosterone antagonists, 19% were given calcium channel blockers, 16.7% were given digoxin, 35.7% were given nitrates and 26.5% were given hydralazine.

72.8% of patients had received antiplatelets and 72.5% had received statins at the time of discharge. Guideline based therapy was received by 45.6 % of our patients.

6.2.8 Cause of Decompensation

Table 11Cause of Decompensation

Cause(n=338)	**No. (%)**
Infection	112(33.1%)
Non-compliance	31(9.2)
Acute Coronary Syndrome	107(31.7)
Arrythmia	25(7.4)
Renal Failure	16(4.7)
Anemia	26(7.7)
Others	3(0.9)
Type of infection(n=112)	
Pneumonia	63/112(56.3)
No organism isolated	49/63(77.8)
Influenza A/B	6/63(9.5)
Klebsiella pneumoniae	5/63(7.9)
Escherichia coli	2/63(3.2)
Others	1/63(1.6)
Pyelonephritis	18/112(16.1)
Escherichia coli	11/18(61.1)
No organism isolated	4/18(22.2)
Klebsiella	1/18(5.6)

Others	2/18(11.1)
Infective Exacerbation of COPD*	13/112(11.6)
No organism isolated	10/13(76.9)
Influenza A/B	3/13(23.1)
Infective Endocarditis	7/112(6.3)
Septic Shock with Unknown Source	4/112(3.6)
Scrub Typhus	1/112(0.9)
Others	6/112(5.4)

*COPD: Chronic obstructive pulmonary disease

The most common cause of decompensation was infection (33.1%), followed by acute coronary syndrome (31.7%). Non-compliance was the cause in 9.2% of participants, arrythmia in 7.4%, renal failure in 4.7% and anemia in 7.7%. Among patients with infection, pneumonia was the most common cause (56.3%), followed by pyelonephritis (16.1%), infective exacerbation of chronic obstructive pulmonary disease (11.6%), infective endocarditis (6.3%), septic shock with unknown source (3.6%) and scrub typhus (0.9%). Among the 63 patients with pneumonia, Influenza A or B (6/63) was the cause in 9.5%. This was followed by Klebsiella pneumoniae (5/63, 7.9%) and Escherichia coli (2/63, 3.2%). However, in 49 patients among the ones with pneumonia (49/63, 77.8%), no respiratory pathogen could be isolated.

6.3 Results of the study

6.3.1 Incidence Density of mortality

Table 12 Mortality

Time	Mortality (%)	Cumulative Mortality (%) n=249
In-Hospital	33/249(13.25%)	33/249 (13.25%)
1-month mortality	35/216 (16.20%)	68/249 (27.30%)
3-month mortality	13/181 (7.18%)	81/249 (32.53%)
6-month mortality	14/168 (8.33%)	95/249 (38.15%)

The total number of participants in the prospective arm was 249. The in-hospital mortality was 33(13.25%). The cumulative mortality at the end of 1, 3 and 6 months was 68 (27.3%), 81(32.53%) and 95 (38.15%) respectively.

The incidence density of mortality was $\frac{\boldsymbol{Number\ of\ Deaths}}{\boldsymbol{Total\ time\ duration\ (Months)}} \boldsymbol{x\ 100}=$

$$\frac{\mathbf{95}}{\mathbf{1467}} * \mathbf{100} = \ \mathbf{6.47}$$

There were 6.47 deaths per 100 person-months of follow up.

6.3.2 Survival Time

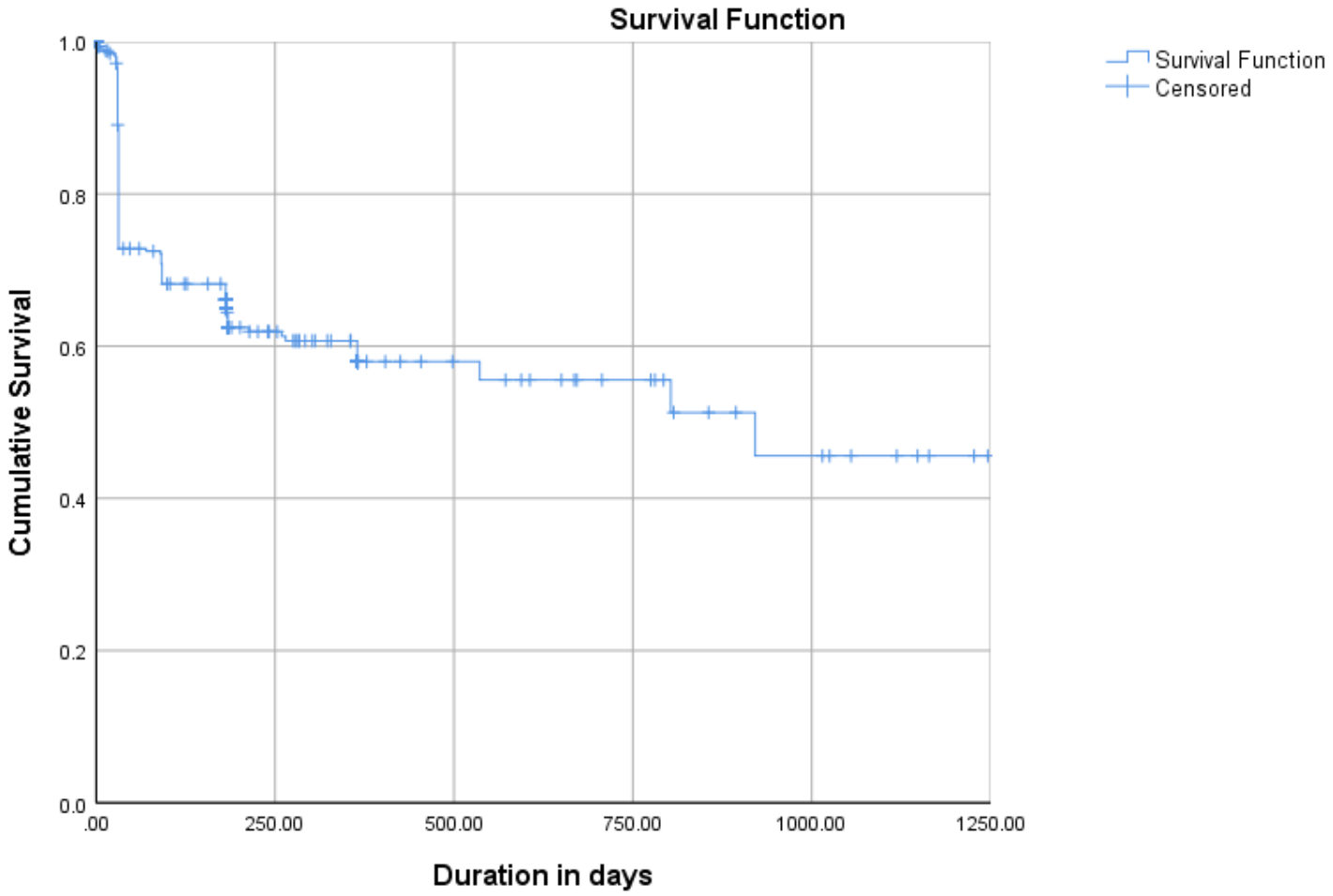
Table 13 Survival time

Mean +/- SD (95% CI), in days	704.51 +/- 43.11 (620.00 – 789.02)
Median, in days	921

The mean survival time was 704.51 days (SD 43.11, 95% CI: 620.00 – 789.02). The median duration of survival was 921 days.

6.3.3 Kaplan-Meier Survival Estimate

Figure 4 Kaplan-Meier Survival Estimate

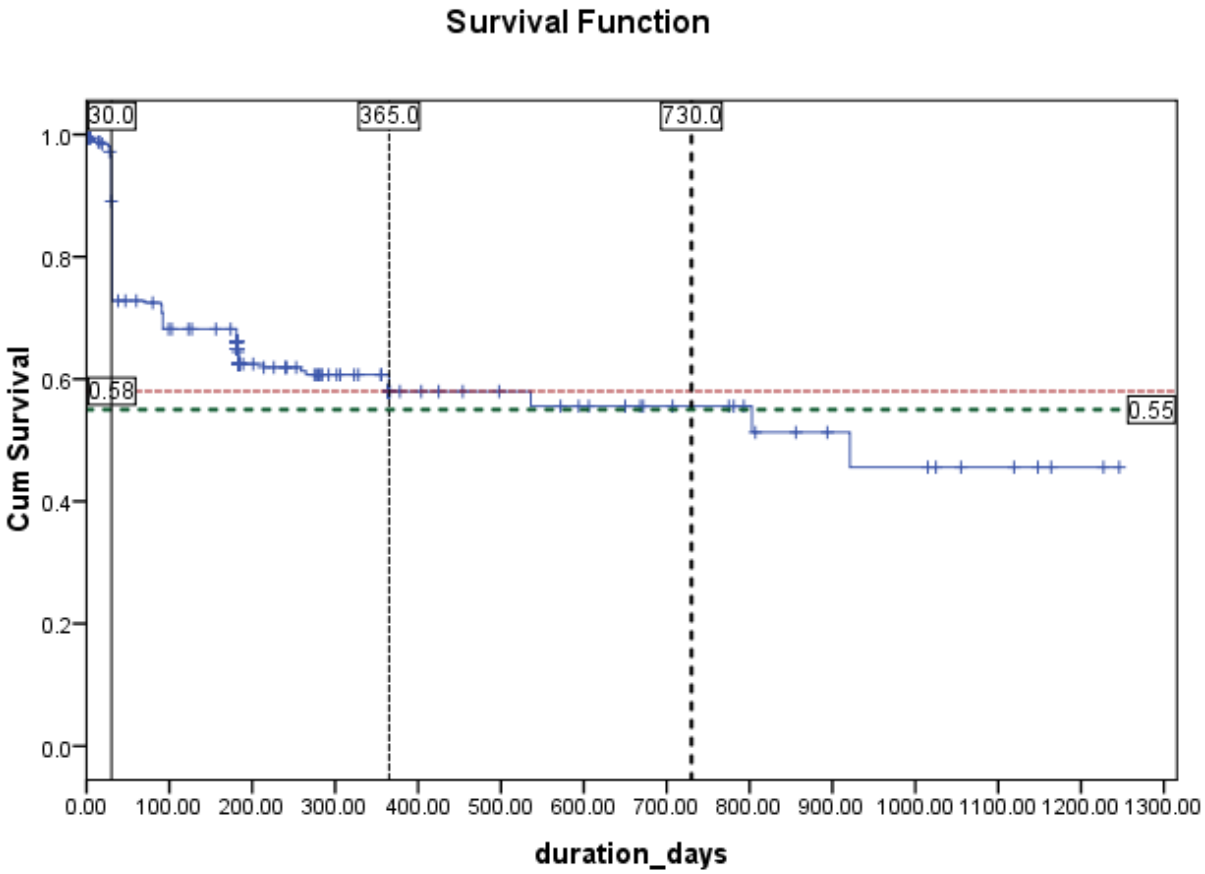


Number at risk

295	105	24	15	7	1

A Kaplan Meier survival curve was constructed for our study. As seen in the curve, most deaths occur early within the first one month and remain stable thereafter. Hence, those who survive the first one month after discharge tend to have good survival.

Figure 5 Kaplan-Meier Survival Estimate



Time for 25% of deaths was 30 days. The Survival percentage at the end of 1-year and 2-years were 58% and 55% respectively.

6.3.4 Effect of Guideline based therapy on Survival

Guideline based therapy was defined in our study as being prescribed a beta blocker along with either an angiotensin converting enzyme inhibitor (ACEI), angiotensin receptor blocker (ARB) or both isosorbide and hydralazine, regardless of ejection fraction on echocardiogram, at the time of discharge.

Figure 6 Kaplan-Meier Survival Estimate

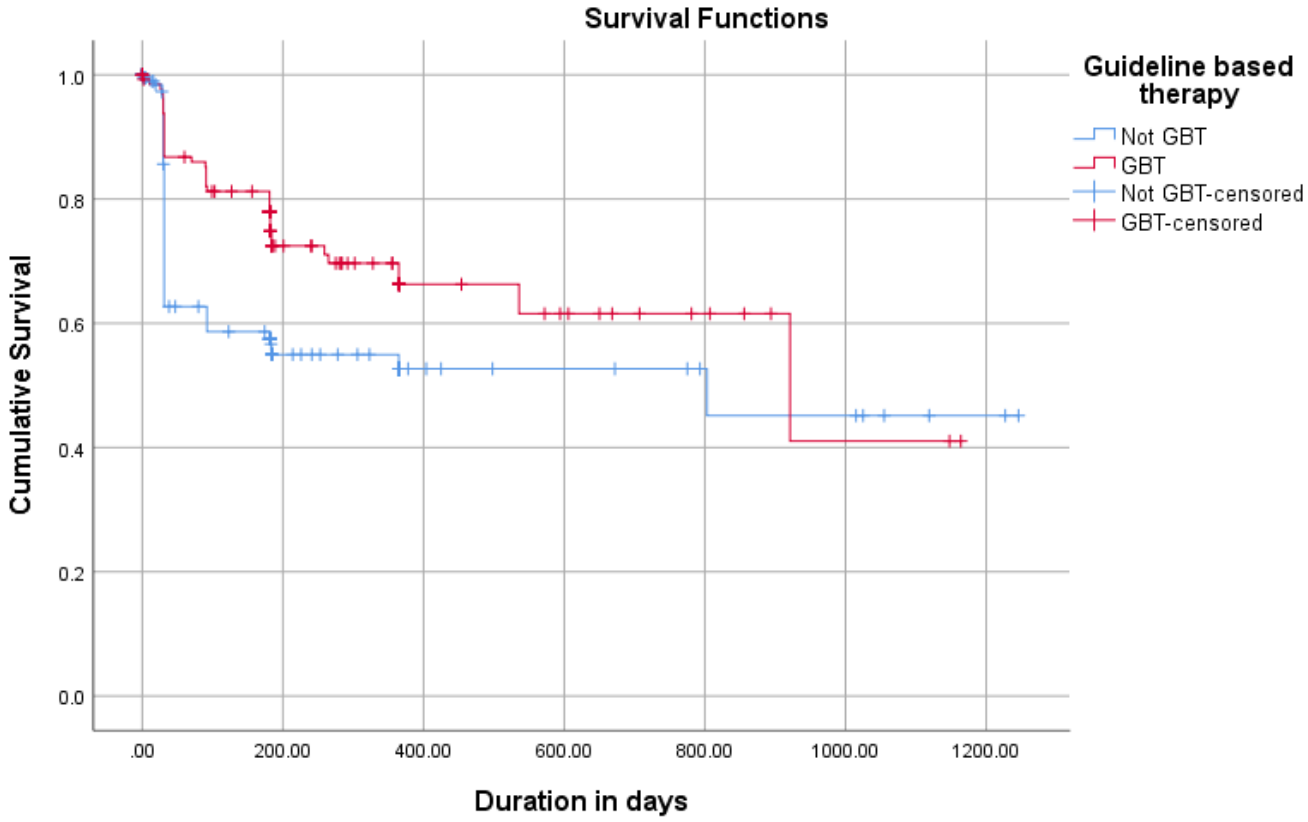


Table 14 Overall comparisons

	Chi-Square	df	Significance
Log Rank (Mantel-Cox)	8.34	1	0.004
Breslow	13.16	1	0.00
Tarone -Ware	11.37	1	0.001

6.3.5 Survival time

Table 15 Survival time

	Mean survival time +/- SD (95% CI), in days	Median survival time, in days
Patients on GBT*	735.9 +/- 64.1 (610.3 – 861.6)	921 +/- 324.4 (285.2 – 1556.8)
Patients not on GBT	652.8 +/- 53.5 (547.7 – 757.8)	803

*GBT: Guideline based therapy: defined in our study as being prescribed a beta blocker along with either an angiotensin converting enzyme inhibitor (ACEI), angiotensin receptor blocker (ARB) or both isosorbide and hydralazine, regardless of ejection fraction on echocardiogram, at the time of discharge.

As seen in the Kaplan-Meier estimate there was a difference between the survival times between the group that received guideline-based therapy and the group that did not. This difference was statistically significant by log-rank test. The patient in guideline-based therapy had a mean survival time of 735.9 days (SD 64.1, 95% CI 610.3 – 861.6) while the group that did not receive guideline-based therapy had a mean survival time of 652.8 days (SD 53.5, 95% CI 547.7 – 757.8). The median survival time was 921(SD 324.4,

95% CI 285.2 – 1556.8) days in the group that received guideline-based therapy and 803 days in the group that did not receive guideline-based therapy

6.3.6 MLHFQ score at discharge

The mean MLHFQ (Minnesota Living with Heart Failure Questionnaire) score at discharge was 52.12 (SD 19.14).

The change in MLHFQ score at follow up is given in the table below

Table 16 Change in MLHFQ score

Time	Mean MLHFQ*score (+/- SD)	Median MLHFQ score
Discharge	52.12 +/- 19.14	52
1-month follow up	46.17 +/- 27.17	47
3-month follow up	57.33 +/- 15.01	58
6-month follow up	43.1 +/- 19.54	43

*MLHFQ: Minnesota Living with Heart Failure questionnaire score. It consists of 21 items with a 6-point response scale from 0 to 5, leading to a total score and two domain scores, i.e., physical and emotional state. A higher score indicates worse health status.

6.3.7 Predictors of mortality at 6 months:

6.3.7.1 Adjusted and Unadjusted Survival Analyses (Cox proportional hazard Regression Analysis)-Demographic details

Table 17 Adjusted and Unadjusted Survival Analyses (Cox proportional hazard Regression Analysis)-Demographic details

Variables	**Unadjusted analysis**			**Adjusted analysis**		
	HR	**95% CI**	**P - Value**	**HR**	**95% CI**	**P - Value**
Gender						
Male	1.08	0.73 – 1.61	0.689			
Female	1.00					
Age	1.01	0.99 – 1.03	0.084	1.01	0.99 – 1.04	0.190
Marital Status						
Married	0.67	0.09 – 4.84	0.694			
Unmarried	1.00					
Education of Head						
Illiterate	1.02	0.30 – 3.49	0.974			
Primary/Middle	1.32	0.58 – 2.99	0.504			
High/Intermediate	1.11	0.49 – 2.48	0.801			
Graduate and	1.00					
Above						

Occupation of Head						
Unemployed/Unskilled/Semi-skilled	1.27	0.63 – 2.56	0.507			
Skilled/Clerical/Shop owner/Farmer	1.41	0.70 – 2.84	0.338			
Semi-professional/ Professional	1.00					
Family income per month						
Less than ₹6477	0.55	0.23 – 1.32	0.182			
₹6478 – 10795	0.74	0.34 – 1.60	0.446			
₹10796 – 21591	0.92	0.48 – 1.78	0.809			
Above ₹21592	1.00					
Kuppusamy Class						
Upper/Upper Middle	2.69	0.36 – 20.09	0.335			
Lower Middle/Upper Lower	2.91	0.40 – 20.99	0.289			
Lower	1.00					

IPAQ Score						
Categorical Score						
Inactive	1.00					
Minimally	1.03	0.59 – 1.80	0.927			
Active						
HEPA active	0.89	0.47 – 1.69	0.722			
Continuous Score						
<=1000	0.98	0.62 – 1.53	0.912			
>1000	1.00					
BMI						
<25	1.00					
>=25	1.12	0.71 – 1.77	0.635			
BMI						
<30	1.00					
>=30	0.58	0.25 – 1.35	0.206			
ICUStay						
< 2 Days	1.00			1.00		
>=2 Days	1.55	0.83 – 2.59	0.094	0.82	0.37 – 1.81	0.617
ICUStay						
< 3 Days	1.00					
>=3 Days	1.55	0.91 – 2.65	0.107			
ICUStay						
< 4 Days	1.00					

>=4 Days	1.34	0.75 – 2.38	0.321			
ICUStay						
< 5 Days	1.00					
>=5 Days	1.49	0.75 – 2.99	0.257			
Ward Stay						
< 5 Days	2.16	1.39 – 3.37	0.001	0.80	0.25 – 2.54	0.709
>=5 Days	1.00			1.00		

6.3.7.2 Adjusted and Unadjusted Survival Analyses (Cox proportional hazard regression Analysis)-Presenting Symptoms and Signs

Table 18 Adjusted and Unadjusted Survival Analyses (Cox proportional hazard regression Analysis)-Presenting Symptoms and Signs

Variables	**Unadjusted analysis**			**Adjusted analysis**		
	HR	**95% CI**	**P - Value**	**HR**	**95% CI**	**P - Value**
Symptoms						
Chest Pain	1.11	0.72 – 1.71	0.640			
Dyspnea	1.22	0.50 – 3.00	0.668			
Palpitations	1.01	0.65 – 1.57	0.963			
Leg Swelling	1.28	0.86 – 1.91	0.226			
Sweating	1.01	0.62 – 1.63	0.980			
Syncope	1.74	0.76 – 3.97	0.190			
Orthopnea	1.06	0.70 – 1.62	0.773			

Paroxysmal Nocturnal Dyspnea	0.92	0.50 – 1.68	0.775			
Fatigue	1.39	0.94 – 2.07	0.103			
Cough	0.84	0.56 – 1.24	0.376			
Fever	1.02	0.66 – 1.57	0.920			
Effort tolerance < 500m	0.71	0.38 – 1.35	0.299			
Vital Signs						
Pulse rate > 120/min	1.35	0.89 – 2.03	0.160			
Systolic Blood Pressure <90mm hg	1.66	0.99 – 2.77	0.053	1.57	0.79 – 3.10	0.196
Diastolic Blood pressure <60mm hg	1.38	0.91 – 2.09	0.132			
Respiratory Rate >40/min	1.24	0.80 – 1.91	0.339			
Saturation <80%	1.44	0.90 – 2.29	0.129			
Physical Findings						
Pallor	0.96	0.63 – 1.44	0.824			
Icterus	1.31	0.57 – 2.99	0.523			
Clubbing	0.05	0.00 –105.14	0.441			
Cyanosis	5.01	1.23 – 20.40	0.025	5.95	1.13 –31.41	0.036

Lymphadenopathy	1.33	0.33 – 5.41	0.688			
Pedal Odema	1.01	0.67 – 1.51	0.975			
Elevated JVP	1.11	0.72 – 1.71	0.636			
S3	1.36	0.82 – 2.24	0.233			
S4	2.69	0.85 – 8.48	0.092	0.89	0.09 – 8.43	0.917
Crepitations	1.68	0.81 – 3.46	0.160			
Level of crepitations						
Basal fine crepitations	1.00					
Coarse crepitations till <50% chest	1.16	0.73 – 1.83	0.533			
Coarse crepitations till >50% chest	1.67	0.94 – 2.96	0.078			
Hepatomegaly	0.71	0.36 – 1.40	0.319			
Shifting Dullness	1.30	0.60 – 2.80	0.509			

6.3.7.3 Adjusted and Unadjusted Survival Analyses (Cox proportional hazard regression Analysis): Comorbidities

Table 19 Adjusted and Unadjusted Survival Analyses (Cox proportional hazard regression Analysis): Comorbidities

Variables	**Unadjusted analysis**			**Adjusted analysis**		
	HR	**95% CI**	**P - Value**	**HR**	**95% CI**	**P - Value**
Diabetes Mellitus	1.19	0.79 – 1.79	0.409			
Hypertension	0.87	0.59 – 1.30	0.497			
Dyslipidemia	0.94	0.59 – 1.49	0.784			
Coronary Artery Disease	1.23	0.81 – 1.87	0.333			
Previous ACS	1.39	0.90 – 2.17	0.142			
Known case of Heart Failure	1.53	1.03 – 2.28	0.034	0.98	0.53 – 1.81	0.951
Cause of Heart Failure						
Ischemic Heart Failure	1.00					
Rheumatic Heart Disease	1.29	0.63 – 2.62	0.486			
Dilated Cardiomyopathy	1.74	0.77 – 3.94	0.186			
Chronic kidney disease	1.01	0.61 – 1.66	0.981			
Chronic Liver Disease	1.29	0.41 – 4.08	0.661			
Previous Stroke/TIA	1.93	1.00 – 3.71	0.049	2.27	0.99 – 5.19	0.051

Peripheral arterial occlusive Disease	0.85	0.21 – 3.46	0.822			
Hypothyroidism	0.66	0.29 – 1.50	0.317			
Cushing's Syndrome	4.39	1.39 – 13.91	0.012	2.46	0.55 –10.95	0.236
Valvular Heart Disease	1.05	0.58 – 1.93	0.865			
Alcohol consumption	0.90	0.50 – 1.62	0.729			
Smoking	1.40	0.86 – 2.26	0.175			
Tobacco chewing	3.42	0.48 – 24.55	0.222			
Tuberculosis in Past	1.75	0.81 – 3.78	0.153			
Atrial Fibrillation	2.39	0.97 – 5.88	0.057	1.25	0.35 – 4.51	0.730
Anticoagulation	1.14	0.19 – 6.85	0.887			
COPD	1.09	0.61 – 1.96	0.769			
Past LRTI	0.74	0.32 – 1.69	0.470			

6.3.7.4 Adjusted and Unadjusted Survival Analyses (Cox proportional hazard regression Analysis): Diet

Table 20 Adjusted and Unadjusted Survival Analyses (Cox proportional hazard regression Analysis): Diet

Variables	Unadjusted analysis			Adjusted analysis		
	HR	95% CI	P-Value	HR	95% CI	P-Value
Diet						
Veg	1.22	0.61 – 2.44	0.571			
Non-veg	1.00					
Egg Yolk						
Never/Once a month	1.00					
Less than 3 times a month	0.93	0.55 – 1.57	0.782			
More than 3 times/Daily	0.96	0.49 – 1.90	0.909			
Milk (Full fat)						
Never/Once a month	1.00					
Less than 3 times a month	0.93	0.42 – 2.06	0.858			
More than 3 times/Daily	1.03	0.49 – 2.17	0.944			
Red Meat (Beef, Mutton)						
Never/Once a month	1.00					
Less than 3 times a month	0.66	0.42 – 1.05	0.078			

More than 3 times/Daily	0.68	0.31 – 1.52	0.347			
White meat (Chicken)						
Never/Once a month	1.00					
Less than 3 times a month	0.96	0.60 – 1.55	0.878			
More than 3 times/Daily	1.04	0.51 – 2.14	0.914			
Shell fish (Prawn, crab, Lobster)						
Never/Once a month	1.00					
Less than 3 times a month	0.74	0.46 – 1.19	0.212			
More than 3 times/Daily	1.22	0.49 – 3.04	0.678			
Butter/Ghee						
Never/Once a month	1.00					
Less than 3 times a month	0.93	0.58 – 1.48	0.754			
More than 3 times/Daily	1.10	0.47 – 2.57	0.826			
Fried Snacks (Vada, Bonda, Puff)						
Never/Once a month	1.00					
Less than 3 times a month	0.91	0.56 – 1.50	0.723			
More than 3 times/Daily	1.05	0.58 – 1.90	0.877			

6.3.7.5 Adjusted and Unadjusted Survival Analyses (Cox proportional hazard regression Analysis): Lab investigations and imaging

Table 21 Adjusted and Unadjusted Survival Analyses (Cox proportional hazard **regression Analysis): Lab investigations and imaging**

Variables	**Unadjusted analysis**			**Adjusted analysis**		
	HR	**95% CI**	**P - Value**	**HR**	**95% CI**	**P-Value**
Hemoglobin						
<=7 g/dL	0.69	0.30 – 1.59	0.386			
<=10 g/dL	0.81	0.53 – 1.24	0.328			
Urea >=45 mg %	1.58	1.04 – 2.39	0.032	1.65	0.92 – 2.96	0.095
Creatinine >=2 mg %	1.18	0.76 – 1.83	0.456			
HbA1c						
>=6.5 %	1.19	0.72 – 1.96	0.508			
>=10 %	1.05	0.50 – 2.20	0.895			
Total Cholesterol >=200 mg %	0.94	0.40 – 2.22	0.884			
Triglyceride >=150 mg %	0.67	0.34 – 1.33	0.255			
LDL>=100 mg %	0.94	0.51 – 1.73	0.847			
HDL <40 mg %	1.61	0.89 – 2.91	0.118			

Sodium <135mmo /L >145 mmol /L	 1.73 0.65	 1.14 – 2.61 0.09 – 4.68	 0.010 0.671	 1.24	 0.70 – 2.21	 0.465
Potassium <=3.5mmol /L	 0.89	 0.53 – 1.51	 0.673			
Uric Acid >=6 mg%	1.56	0.63 – 3.90	0.337			
NTproBNP>=450pg/ml	0.60	0.08 – 4.82	0.631			
Serum Osmolarity <270m mol/ kg >=290m mol/ kg	0.82 0.82 1.63	0.34 – 1.99 0.34 – 1.99 0.63 – 4.19	0.665 0.665 0.315			
pH <7.3 >=7.5	 1.22 1.17	 0.74 – 2.00 0.64 – 2.15	 0.443 0.616			
ABG Lactate>2 mmol/L	1.63	1.07 – 2.49	0.024	1.79	0.98 – 3.25	0.056
Admission Troponin T >50pg/ml Admission CKMB >=3 ng/ml	1.58 1.09	1.04 – 2.40 0.67 – 1.78	0.031 0.727	1.74	0.98 – 3.09	0.059
6-hour Troponin T >50 pg/ml 6-hour CKMB >=4 ng/ml	1.41 1.30	0.85 – 2.35 0.75 – 2.23	0.184 0.349			
ECG findings						

ST Elevation	1.50	0.61 – 3.70	0.384			
ST Depression	1.38	0.82 – 2.34	0.230			
LBBB	1.72	0.86 – 3.43	0.122			
RBBB	1.10	0.48 – 2.72	0.832			
LVH	0.50	0.25 – 0.99	0.046	0.63	0.24 – 1.63	0.341
Arrythmia	1.10	0.62 – 1.98	0.744			
ECHO						
HFrEF (LVER < 40%)	1.06	0.65 – 1.74	0.805			
HFmrEF (LVEF 40-49%)	0.98	0.54 – 1.80	0.951			
HFpEF(LVEF >=50%	1.00					

6.3.7.6 Adjusted and Unadjusted Survival Analyses (Cox proportional hazard regression Analysis): Treatment received

Table 22 Adjusted and Unadjusted Survival Analyses (Cox proportional hazard regression Analysis): Treatment received

Variables	**Unadjusted analysis**			**Adjusted analysis**		
	HR	**95% CI**	**P - Value**	**HR**	**95% CI**	**P - Value**
Non-Invasive Ventilation	1.62	1.03 – 2.56	0.037	1.65	0.90 – 3.04	0.105
Duration of NIV>= 1day	1.62	1.03 – 2.56	0.037			
Intubation	1.13	0.49 – 2.60	0.774			
Duration of intubation						
>=1day	1.13	0.49 – 2.60	0.774			
>=2days	1.22	0.53 – 2.80	0.638			
>=3days	1.22	0.53 – 2.80	0.638			
>=4 days	1.36	0.55 – 3.35	0.509			
>=5 days	1.97	0.80 – 4.87	0.142			
ICUStay						
< 2 Days	1.00			1.00		
>=2 Days	1.55	0.83 – 2.59	0.094	0.82	0.37 – 1.81	0.617
ICUStay						
< 3 Days	1.00					
>=3 Days	1.55	0.91 – 2.65	0.107			
ICUStay						

< 4 Days	1.00					
>=4 Days	1.34	0.75 – 2.38	0.321			
ICUStay						
< 5 Days	1.00					
>=5 Days	1.49	0.75 – 2.99	0.257			
Ward Stay						
< 5 Days	2.16	1.39 – 3.37	0.001	0.80	0.25 – 2.54	0.709
>=5 Days	1.00			1.00		
Nitrate	0.83	0.51 – 1.36	0.466			
Alpha blocker	0.59	0.22 – 1.61	0.304			
Antiplatelets						
Aspirin	1.19	0.68 – 2.08	0.549			
Clopidogrel	1.28	0.17 – 9.43	0.812			
Both	1.10	0.65 – 1.88	0.717			
Statins						
Atorvastatin	0.80	0.51 – 1.26	0.340			
Simvastatin	0.83	0.20 – 3.46	0.797			
Warfarin	0.36	0.09 – 1.47	0.156			
NHYA Class at Discharge > III	1.56	0.90 – 2.73	0.115			
ACC/AHA Stage D at Discharge	6.74	4.20 – 10.80	<0.001	5.25	2.54 – 10.83	<0.001

6.3.7.7 Adjusted and Unadjusted Survival Analyses (Cox proportional hazard regression Analysis): Cause of Decompensation

Table 23 Adjusted and Unadjusted Survival Analyses (Cox proportional hazard regression Analysis): Cause of Decompensation

Variables	**Unadjusted analysis**			**Adjusted analysis**		
	HR	**95% CI**	**P - Value**	**HR**	**95% CI**	**P - Value**
Infection	1.12	0.74 – 1.68	0.589			
Non-Compliance	0.40	0.15 – 1.09	0.072	0.25	0.03 – 1.87	0.176
Acute Coronary Syndrome	1.44	0.96 – 2.15	0.078	0.68	0.37 – 1.28	0.233
Arrythmia	1.51	0.78 – 2.90	0.219			
Renal Failure	1.18	0.48 – 2.91	0.714			
Anemia	0.78	0.34 – 1.79	0.559			

Note: * sign indicates that the adjusted analysis done at p value <0.10 in the unadjusted analysis

The cox proportional hazard models identified the presence of cyanosis at admission, history of previous stroke or transient ischemic attack, admission lactates >2 m mol/L, admission Troponin T >50 pg/ml and ACC/AHA stage D at the time of discharge as being associated with mortality at 6 months in a patient admitted with acute decompensated heart failure.

6.3.8 Comparison of observed mortality and survival time to that predicted by the Seattle heart failure model

Figure 7 ROC curve for one-year mortality predicted by Seattle heart failure model and actual mortality

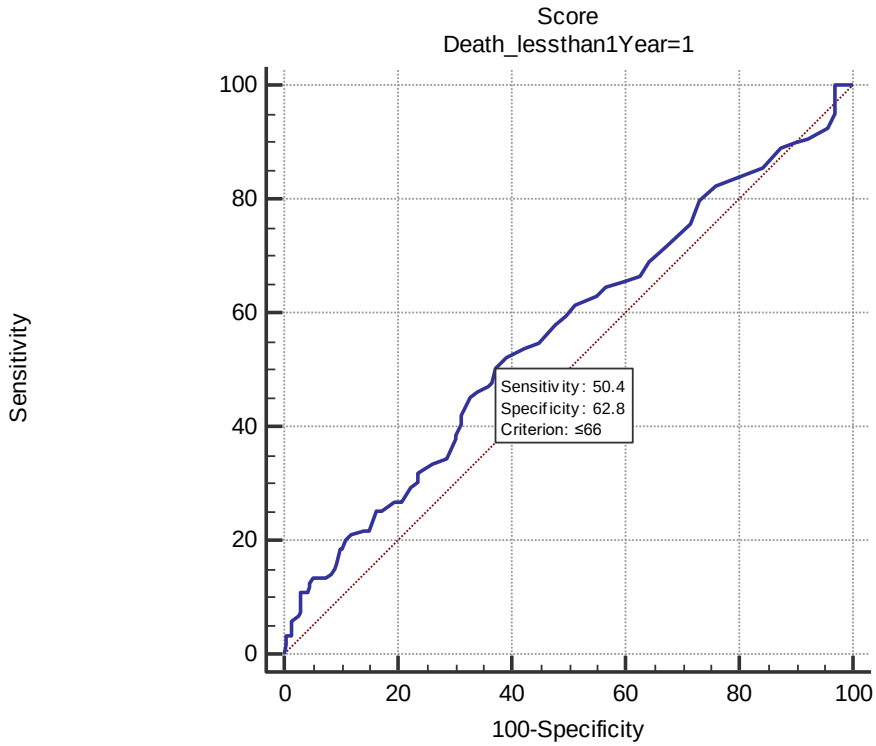


Table 24 Area under the ROC curve (AUC)

Area under the ROC curve (AUC)	0.562
Standard Error [a]	0.0341
95% Confidence interval [b]	0.505 to 0.618
z statistic	1.813
Significance level P (Area=0.5)	0.0698

[a] DeLong et al., 1988 [b] Binomial exact

Table 25 Youden index

Youden index J	0.1325
Associated criterion	≤66
Sensitivity	50.42
Specificity	62.83

Receiver operating characteristics (ROC) for the score sensitivity was 50.4 (95%CI: 41.1 - 59.7) and specificity 62.8(95%CI: 55.6 - 69.7) and the Area under the curve(AUC) was 56.2(95%CI: 50.5 – 61.8). The score did not seem to be discriminatory and was confound by the insignificant value of AUC.

6.3.9 Cost Analysis

Table 26 Cost Analysis

Cost in Rupees (₹)	**Mean +/- SD**	**Median**	**Interquartile Range**
Bill Amount (n=249)	₹69,746.70 +/- 68,579.40	₹50,990.00	₹ 29,536 - ₹ 81,184
Pharmacy Bill (n=209)	₹53,651.27 +/- 61,770.17	₹27,837.00	₹14,745 - ₹72,011
Cost of Accommodation (n=98)	₹5,121.43 +/- 6,889.73	₹2,500.00	₹775- ₹5,000
Cost of Food (n=130)	₹3,631.54 +/- 4,725.70	₹2,000.00	₹1000- ₹5,000
Total Direct Cost (n=249)	₹1,18,690.94 +/- 1,12,485.50	₹84,881.00	₹50,216 -₹1,50,083

The median cost for an admission was ₹ 50,990. The median drug cost, cost of accommodation and cost of food were ₹ 27,837, ₹ 2500 and ₹ 2000 respectively. The mean total direct cost of admission was ₹1,18,690.94 (median cost ₹84,881, interquartile range ₹ 50,216 - ₹ 1,50,083).

7 Discussion

There are an estimated 6.5 million people in the USA with heart failure; this number is projected to hit 8 million by 2030.(2) In India, it is estimated that there are between 1.3 and 4.6 million individuals with heart failure, but this may be a gross underestimation.(13) Nevertheless, there is no denying the fact that heart failure is a worrisome global problem.

We performed a prospective cohort study in a large tertiary care hospital in South India. We recruited patients using the Boston criteria which has been validated in prior studies.(32,78) We followed all patients for at least 6 months after discharge with a telephonic interview.

In our study, there were almost equal proportion of males and females. The mean age was 58.8 years. This was about 10 years lesser than the mean age of 70 years of participants in most worldwide cohorts of patients with heart failure(79,80). However, in the Asian heart failure registry, the percentage of males was 78.2% and the mean age was 59.6 years.(81) In the Trivandrum heart failure study also, there were more males (69.2%) and the mean age was 61.23 years.(17) It is interesting that we did not find a male preponderance as described in the Trivandrum or Asian heart failure registries.(17)

More than half of the patients (60.4%), were recruited during their first admission for decompensated heart failure. This means that almost 40% of patients were re-admitted with an episode of decompensated heart failure emphasizing the chronic and debilitating

nature of this disease. In the OPTIMIZE-HF study, only 13% of patients were admitted for the first time with heart failure, while in the ATTEND registry, 63% of patients were admitted for the first time with heart failure.(44,80) In the Asian heart failure registry and Trivandrum heart failure registry, 35.9% of patients and 40% of patients were admitted with de novo heart failure respectively.(17,81)

The largest number of patients with previously diagnosed heart failure had ischemic heart disease as the etiology (76.9%), followed by rheumatic heart disease (20.9%), dilated cardiomyopathy (11.2%) and others. In the Trivandrum heart failure registry, ischemic heart disease contributed to 71.8%, dilated cardiomyopathy to 12.9% and rheumatic heart disease to 7.8% of the patients with heart failure.(17) This shows that, while ischemic heart disease is undoubtedly the most common cause of heart failure, rheumatic heart disease still contributes to a large number of cases in India depending on the geographical location.

Thirteen percent of our patients were obese, 36.5 % were pre-obese and 16.5% of patients were overweight. Although obesity and metabolic syndrome contribute to coronary artery atherosclerosis and ischemic heart disease, which is a cause of heart failure, more than one quarter is of heart patients had normal BMI or were underweight. This is probably because of cardiac cachexia causing weight loss after the patient develops heart failure.

85.8% of our patients have an NYHA class of IV at presentation while 11.5% have an NYHA class of III. In comparison, only 47.2% of patients had NYHA class IV symptoms and 39.1% had NYHA class III symptoms in the ATTEND trial. In the Trivandrum heart failure registry, 32.8% of patients presented with NYHA class IV symptoms.(17) Hence

our patients were more severely symptomatic at presentation to the hospital. There may also be an element of referral bias as ours is a tertiary care center and patients who cannot be managed in a secondary care center are referred to our hospital.

A significant proportion of patients in our study had diabetes mellitus (58.6%) and hypertension (55.6%). The percentage of patients with diabetes mellitus in other global cohorts of patients with heart failure ranges between 33% in the EHFS II study to 44% in the ADHERE registry.(41,82) The percentage of subjects with diabetes mellitus was 40.4% in the Asian heart failure registry.(81) This makes the percentage of diabetics among our patients with heart failure 20-30% higher than what is seen globally. In the Trivandrum heart failure registry, the percentage of patients with diabetes mellitus was 54.9%, while in the Manipal heart failure registry it was 48 % in the patients with reduced ejection fraction and 33% in the patients with preserved ejection fraction.(17,54) The numbers in the Trivandrum heart failure registry were comparable to those found in our study.

The percentage of hypertensives in global cohorts is about 63% in the EHFS II cohort to 74% in the ADHERE registry.(41,82) Hence, we have about 10-20% less prevalence of hypertension among our patients with heart failure compared to global cohorts. The percentage of subjects with hypertension was 51.9% in the Asian heart failure registry.(81) In the Trivandrum heart failure registry, the number of patients with hypertension was 57.7% while in the Manipal heart failure study it was 33% in patients with reduced ejection fraction and 41% in patients with preserved ejection fraction.(17,54) Again, the percentage of patients with hypertension in our study was

similar to that found in the Trivandrum heart failure study, while the Manipal heart failure registry had lesser number of hypertensive patients.

The percentage of patients with heart failure in atrial fibrillation was 8.8 % in our study. This is much less than the 31 % of patients and 40 % of patients with atrial fibrillation in the OPTIMIZE-HF and ATTEND cohorts respectively.(44,80) In the Asian heart failure registry, the percentage of patients with atrial fibrillation was 17.9 %, while it was 14.7% in the Trivandrum heart failure registry.(17,81) These percentages were closer to those observed in our study. In the Manipal heart failure registry, the percentage of patients with atrial fibrillation was 12% in the group with reduced ejection fraction and 14% in the group with preserved ejection fraction.(54)

The presence of patients with a history of past stroke or transient ischemic attack was also lesser in our population (6.2%). In contrast, a history of prior stroke or transient ischemic attack was present in 17% of patients in the ADHERE study.(41) Notably, the percentage of patients with past stroke or transient ischemic attack found in our study was exactly similar to the percentage found in the Trivandrum heart failure registry(6.2%).(17) This was also very close to the 6.4% of patients with prior stroke in the Asian heart failure registry.(81) Only 1 % of patients with reduced ejection fraction and 3 % of patients with preserved ejection fraction had a past history of cerebrovascular accident in the Manipal heart failure registry.(54)

Chronic kidney disease was present in 20.4 % of our patients while it was present in 16.5 % of patients in the EHFS II study and 17.9% of patients in the Trivandrum heart failure

registry.(82) Chronic obstructive pulmonary disease (COPD) was seen in 12.4% of patients in our study and 15.4% of patients in the Trivandrum heart failure registry.(17)

Only 0.6% of patients in our study were Human immunodeficiency virus (HIV) positive as compared to the 13% of patients were HIV positive in the THESUS-HF study. However, this may merely reflect the difference in local prevalence of HIV disease with between sub-Saharan Africa and India.

14.2% of patients were alcohol users while 16.6% of the patients were smokers. In the Asian heart failure registry, 45% of the participants were current or ex-smokers while 29% were current or ex-alcohol consumers.(81) In the Trivandrum heart failure registry, 15.6% of patients were smokers and 19.4% of the patients were alcohol consumers.(17)

39.1 % of our patients had heart failure with reduced ejection fraction, 21.1% of our patients had heart failure with mildly reduced ejection fraction while 39.7% had heart failure with preserved ejection fraction. This finding was consistent with what was found in Western cohorts. 46% of patients in the EHFS II and 57% of patients in the ATTEND trial respectively had left ventricular ejection fraction less than 40%.(80,82) 45.1% of patients in the Trivandrum heart failure registry had left ventricular ejection fraction less than 35%.(17) It is important to take note of the fact that more than half of the patients with heart failure had normal systolic function on echocardiogram. Hence, defining heart

failure solely on the basis of echocardiogram can grossly underestimate the burden of the disease. Most studies on heart failure had included patients with heart failure with reduced ejection fraction as the inclusion criteria were defined based on echocardiographic findings. This emphasizes the need to use clinical criteria while defining heart failure and including them in studies, as we have done here.

Non-invasive ventilation was required for 26.9% of patients. They used it for a mean duration of 1.66 days. Invasive ventilation was required for 7.2% of patients for a mean duration of 5.56 days. In the ATTEND registry, 36% of patients required non-invasive ventilation while 11.1% of patients required invasive ventilation.(80) In our study, the percentage of patients who received diuretics, angiotensin-converting enzyme inhibitors (ACEI), angiotensin receptor blockers (ARB), aldosterone antagonists and beta blockers as treatment were 79.5%, 33.3%, 10.4%, 17.3% and 56.2% respectively. In the ATTEND registry, 80.4% of patients had received diuretics.(80) In the Trivandrum heart failure study, the percentages of patients who had received diuretics, ACEI, ARB, aldosterone antagonists and beta blockers for treatment were 93.9%, 36.9%, 9.1%, 43.7% and 53.8% respectively.(17) The respective percentages were 98%, 30%, 8%, 50%, and 18% in the group with reduced ejection fraction and 94%, 22%, 13%, 52%, and 11% in the group with preserved ejection fraction in the Manipal heart failure study.(54)

While looking at discharge medications we found that, 59.5% of our patients were discharged on beta blockers, 48.6 % on angiotensin-converting enzyme inhibitors (ACEI)

or angiotensin receptor blockers (ARB), 24.1 % on aldosterone receptor antagonists and 67.3 % on diuretics. The percentage of patients discharged on beta blockers were similar to the 61.8% seen in the EHFS II study.(82) However, in the same study 80.2 % of patients were discharged with ACEI/ARBs which was almost 40% more than the patients in our study. In the Asian heart failure registry, 77% of patients were prescribed angiotensin-converting enzyme inhibitors or angiotensin receptor blockers, 79% were prescribed beta-blockers and 58% were given aldosterone antagonists at the time of discharge.(50)

The Trivandrum heart failure registry found that 53.8 % of patients were discharged on beta blockers.(17) This was comparable to the numbers observed in our study. Moreover, 46.03 % of patients received ACEI/ARBs, 43.73 % of patients received aldosterone receptor antagonists and 93.94 % of patients received diuretics at the time of discharge, according to this registry.(17) In the Manipal heart failure study, the percentage of patients who received beta blockers, ACEI/ARB, aldosterone antagonists and diuretics were 30%, 65%, 63% and 95% in the group with reduced ejection fraction and 17%, 48%, 8% and 97% respectively in the group with preserved ejection fraction.(54)

Table 27 Comparison of discharge medication among various heart failure studies

Discharge Medication	**EHFS II**	**ASIAN-HF**	**THFR**	**MHFR**		**CHROME-HF**
				LVSD	PSF	
Beta Blocker (%)	61.4	79	53.86	30	17	**59.5**
ACEI*/ARB** (%)	80.2	77	46.03	65	48	**48.6**
Aldosterone antagonists (%)	47.5	58	43.73	63	58	**24.1**
Diuretics (%)	90.1	83	93.94	95	97	**67.3**

*ACEI: Angiotensin converting enzyme inhibitor, **ARB: Angiotensin receptor blocker. EHFS: European Heart Failure survey II, ASIAN-HF: Asian heart failure registry THFR: Trivandrum Heart Failure Registry, MHFR: Manipal Heart failure Registry, CHROME-HF: Clinical characteristics, risk factors and long-term outcomes in patients with acute decompensated heart failure

Only 21.41 % of patients in the Trivandrum heart failure registry received optimal guideline-based therapy which was defined as receiving " a combination of beta-blockers, angiotensin converting enzyme inhibitors (ACEI) or angiotensin receptor blockers (ARB), and aldosterone receptor blockers in patients with left ventricular systolic dysfunction (LVSD, EF <45%)".(17) We found sub-optimal prescription rates of beta blockers, ACE inhibitors/ARB's and aldosterone antagonists in patients with heart failure. Guideline-based therapy (defined in our study as being prescribed a beta blocker along with either an angiotensin converting enzyme inhibitor (ACEI), angiotensin receptor blocker (ARB) or both isosorbide and hydralazine, regardless of ejection fraction on echocardiogram, at the time of discharge), was seen in 45.6% of patients. This was 24.2% more than the percentage seen in the Trivandrum heart failure registry.

The Asian heart failure registry demonstrated a dose dependent improvement in 1-year composite outcome with adherence to guideline-based therapy and guideline recommended dosage of medications.(50) In our study there was a statistically significant improvement in survival if the patient received guideline based therapy. The mean and medial survival times were 735.9 days and 921 days if the patient received guideline-based therapy while it was 652.8 days and 803 days respectively if the patient did not receive guideline-based therapy.

The drugs that constitute guideline-based therapy have individually been shown to have a clear mortality benefit in heart failure through systematic review and meta-analysis of various well-designed, adequately powered randomized controlled trials. Here, we have demonstrated a clear survival benefit in giving patients guideline-based therapy. Hence, all efforts should be made to ensure that more patients are prescribed these medications at optimal doses prior to discharge. Since only 45.6% of patients were prescribed guideline-based therapy, we have an opportunity to improve management and outcome in patients with heart failure in our country.

The most common cause of precipitation of heart failure was infection (33.1%) followed by acute coronary syndrome (31.7%). Non-compliance to medications contributed to 9.2% of cases, arrhythmia to 27.4 %, renal failure to 4.7% and anemia to 7.7% of cases. Therefore, in our study, the percentage of patients with infection precipitating heart failure was more than the 17.6% published in the EHFS II study.(82) The percentage of patients with acute coronary syndrome (30.2%) and arrhythmia (32.4%) precipitating heart failure in the EHFS II was comparable to what was found in our study.(82) However in the EHFS II cohort, there were substantially more number of patients who

had decompensation due to non-compliance to therapy (22.2%). In the ALARM-HF study, the most common precipitating factor for heart failure was acute coronary syndrome (36.9%), followed by arrhythmia (26.9%), infection (16.3%) and non-compliance with medications (13.4%).

In our study, among infections, pneumonia was the most common cause of decompensation of chronic heart failure (56.3%). This was followed by pyelonephritis (16.1%), infective exacerbation of chronic obstructive pulmonary disease (11.6%), infective endocarditis (6.3%), septic shock with unknown source (3.6%) and scrub typhus (0.9%). It is important to note that Influenza A or B was the cause of infection in 9.5% of patients with community acquired pneumonia and 23.1% of patients with an infective exacerbation of chronic obstructive pulmonary disease. This is more important in the context of the fact that only 7.2% of patients received influenza and pneumococcal vaccination prior to discharge. Since it was shown that infections (most commonly pneumonia), are the most common cause of precipitation of heart failure, it is imperative that more patients are vaccinated against these pathogens prior to discharge. This represents another potential opportunity to improve care of patients with heart failure.

The mortality rates and duration of hospitalization of all patients compared to global cohorts and Indian cohorts is given in tables 28 and 29

Table 28 Comparison of mortality and duration of hospitalization between global cohorts and our study

	Rotterdam	EHFS I	EHFS II	EFFECT	ADHERE	OPTIMIZE-HF	ATTEND	THESUS-HF	ALARM-HF	ASIAN-HF	**CHROME-HF**
Patients Number	7983	11327	3580	2450	105388	48612	4842	1006	4953	5276	**338**
In-hospital mortality, %		6.90%	6.70%		4%	4%	6.40%	4.20%	11%		**13.25%**
30-day mortality, %	14%			6.40%		4%		11.20%			**27.3%**
60-day mortality, %						9% (60-90 days)		10.60%			
90-day mortality, %		6.60%	8.10%								**32.53%**
180-day mortality, %								17.80%		6.9%	**38.15%**
1-year mortality, %	37%		20.50%	24.20%							
Hospital stay, median days		11	9		4	4	21	7	6		**8**

Rotterdam: The prognosis of heart failure in the general population: The Rotterdam Study, EHFS I:EuroHeart Failure Survey I,EHFS II: Euro Heart Failure Survey II, EFFECT: Enhanced Feedback for Effective Cardiac Treatment, ADHERE: Acute Decompensated Heart Failure National Registry, OPTIMIZE-HF: Organized Program to Initiate Lifesaving Treatment in Hospitalized Patients with Heart Failure, ATTEND: Acute decompensated heart failure syndromes registry; THESUS-HF: The Sub-Saharan Africa Survey of Heart Failure, ALARM-HF: Acute Heart Failure Global Survey of Standard Treatment, ASIAN-HF: Asian heart failure registry CHROME-HF: Clinical characteristics, risk factors and long term outcomes in patients with acute decompensated heart failure

Table 29 Comparison of mortality and duration of hospitalization between Indian cohorts and our study

	O.s et al[1]	AFAR	Roby et al[2]	MHFR		THFR	**CHROME-HF**
				LVSD	PSF		
Patients Number	287	90	169	128	122	1205	**338**
In-hospital mortality, %	8.01%	30.80%	13.01%	20%	6%	8.50%	**13.25%**
30-day mortality, %		15.80%				12.50%	**27.3%**
60-day mortality, %						18.10%	
90-day mortality, %	14.3%	26.30%					**32.53%**
1-year mortality, %						30.20%	
2-year mortality, %	37.60%						
Hospital stay, median days				6	7	6	**8**

[1] S. O.S., et al., Long-term outcomes of patients admitted with heart failure in a tertiary care center in India, Indian Heart J (2018), https://doi.org/10.1016/j.ihj.2018.01.016; AFAR: Acute failure registry study; [2] Roby A, Ahammed N. Clinical Profile of Acute Heart Failure in rural Trivandrum. Academic Medical Journal of India. 2014 Nov 20;2(3):99–101; MHFR: Manipal Heart failure Registry; THFR: Trivandrum Heart Failure Registry; CHROME-HF: Clinical characteristics, risk factors and long-term outcomes in patients with acute decompensated heart failure

Both in-hospital and follow-up mortality was higher among our patients when compared to both global and Indian data. Moreover, the duration of hospital stay was also longer when compared to Trivandrum heart failure registry. The cause of higher mortality among Indian patients may be due to comorbidities, lesser adherence to guideline-based management and suboptimal prescription of medications at the time of discharge.

The median duration of survival was 921 days (30.27 months). The factors that were independently associated with mortality and 6 months included the presence of cyanosis at admission, a previous history of stroke or transient ischemic attack, admission lactates >2 m mol/L, admission Troponin T >50 pg/ml and ACC/AHA stage D at the time of discharge. In comparison, the independent predictors of survival using multivariate analysis in the cohort used to derive the Seattle heart failure model were NYHA class at presentation, ejection fraction, ischemic heart disease being etiology of heart failure, systolic blood pressure at presentation, diuretic dose used for treatment, allopurinol use, use of statins for treatment, sodium less than 138 mmol/dL, serum cholesterol more than 100 mg /dL, hemoglobin less than 16 g/dL, lymphocytes less than 47% and uric acid more than 3.4 mg/dL.(70)

Ischemic heart disease was an independent predictor of mortality in the Seattle heart failure model and elevated troponin T admission predicted mortality in our study. This indicates that coronary artery disease and acute coronary syndromes are poor prognostic factors in both populations.

A past history of stroke or transient ischemic attack may indicate atherosclerotic disease in the carotid vessels and other vessels of the cerebral circulation. The pathophysiology

of this disease is similar to that of coronary artery disease and is predominantly driven by diabetes mellitus, dyslipidemia and hypertension. The increased prevalence of diabetes mellitus in our population, which drives atherosclerosis in both arterial territories, is probably why the presence of previous stroke or transient ischemic attack emerged as an independent predictor of mortality at 6 months in our study.

Elevated lactate, which was another independent predictor of mortality in our study, is indicative of tissue hypoperfusion, which in turn, is due to severe pump failure. Cyanosis due to pulmonary edema is also indicative of the same. ACC/AHA Stage D indicated irreversible pump failure which is persistent at the time of discharge. This may be analogous to low systolic pressure at presentation, which is a predictor of mortality identified in the Seattle heart failure cohort. Thus, there is a common underlying theme with regards to predictors of mortality of heart failure in both our cohort and the Seattle cohort.

At the same time, the Seattle cohort identified many more predictors of mortality when compared to our study. This may be due to the larger sample size, longer duration of follow and larger set of variables that were analyzed for association.

Various models, including the Seattle heart failure model, have been developed to risk stratified patients with heart failure. They have been created based on data from Western studies. Although we extrapolate these models to our population, an indigenous model has not been developed. Furthermore, these models have not been calibrated or validated in the Indian population. We calculated the observed mortality and survival time of our

patients and compared them to those predicted by the Seattle heart failure model. We then plotted a Receiver operating characteristic (ROC) curve. Receiver operating characteristic (ROC) for the score sensitivity was 50.4 (95% CI: 41.1 - 59.7), specificity 62.8 (95%CI: 55.6 - 69.7) and Area under the curve (AUC) was 56.2 (95%CI: 50.5 – 61.8). The score did not seem to be discriminatory and was confound by the insignificant value of AUC. This indicated that there was no correlation between the mortality predicted by the Seattle heart failure model and observed mortality in our population. Hence, we should refrain from prognosticating our patients with extrapolated data from western models. Instead, we should develop indigenous risk stratification models and validate them in our population.

To the best of our knowledge, ours is the first study in the country to look at the financial burden associated with an admission for acute decompensated heart failure. We found a median total direct cost of ₹ 84,881 which is a substantial amount. The major contributors to cost were the hospital bill and purchase of medications. We have not calculated the indirect costs associated with hospital admission. Therefore, what we have calculated is an underestimation of the true financial burden associated with this disease. Eighty eight percent of our patients have a monthly family income less than ₹ 22,000. This means that an admission for acute decompensated heart failure incurs a cost that is almost 4 times the monthly income of most of the patients. In a developing country like India, where 22% of the population lives below the poverty line, this is substantial expenditure. When out-of-pocket (OOP) payments for health care services takes up such a large portion of a household’s available income and the household may be pushed into poverty as a result

of the same, the healthcare expense is called a catastrophic health expenditure (CHE).(83) The cut off for CHE has been defined both as 10% of total household expenditure and 40% of the household's capacity to pay.(84,85) Since an admission for acute decompensated heart failure incurs such a heavy financial burden, it can be considered as a catastrophic health expenditure.

8 Limitations

Heart failure is a chronic disease and patients can have multiple episodes of decompensation and hospitalizations over a year. Most large studies in heart failure have followed up patients for many years. However, our median duration of follow up was only 6 months. Also, this is a hospital-based study done in a tertiary care hospital and hence is prone to referral bias. Therefore, our results may not represent all the cases of heart failure one would encounter in the community.

Some patients with multiple co-morbidities, presenting to the emergency department may have been referred to other departments like nephrology and not included in the study. The risk factors we identified as independent predictors of mortality at 6-month follow up could be associations rather than causation. Lastly, we were not able to calculate the indirect costs associated with an admission for acute decompensated heart failure. Therefore, we may have underestimated the true financial burden of an admission for the same.

9 Conclusions:

Our study was done to assess the clinical characteristics, risk factors and outcomes of patients admitted with acute decompensated heart failure, admitted to general medical wards and intensive care units in a tertiary care hospital in south India.

9.1 Conclusion of Primary Objective:

9.1.1The incidence density of mortality of patients admitted with acute decompensated heart failure, admitted to a tertiary care hospital in south India was 6.47 deaths per 100 person-months.

9.2 Conclusion of Secondary Objectives:

9.2.1 The median survival time of patients admitted with acute decompensated heart failure to our hospital was 921 days

9.2.1 The presence of cyanosis at admission, a history of previous stroke/TIA, admission serum lactate >2 m mol/L, admission Troponin T >50 pg/ml and ACC/AHA stage D at the time of discharge were associated with 6-month mortality and reduced survival time.

9.2.2 There was no correlation between the observed mortality and the mortality calculated by the Seattle heart failure model

9.2.3 The median total direct cost of admission was ₹ 84,881(mean cost ₹1,18,690.94, Standard deviation (SD) ₹1,12,485.50, Interquartile range (IQR) ₹ 50,216 - ₹ 1,50,083).

9.2.4 The median cost of admission for patients who presented with NYHA class III symptoms was ₹ 1,15,216(mean cost ₹ 1,46,331; SD ₹ 95,278; IQR ₹ 73,600 - ₹ 2,43,978) while the median cost for patients who presented with NYHA Class IV symptoms was ₹ 83,384 (mean cost ₹ 1,17,303; SD ₹ 1,13,562; IQR ₹ 49,708- ₹ 1,48,169).

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11 Annexures
11.1 Institutional Review Board
11.1.1 IRB Application

OFFICE OF RESEARCH
INSTITUTIONAL REVIEW BOARD (IRB)
CHRISTIAN MEDICAL COLLEGE, VELLORE, INDIA

Dr. B.J. Prashantham, M.A., M.A., Dr. Min (Clinical)
Director, Christian Counseling Center,
Chairperson, Ethics Committee.

Dr. Anna Benjamin Pulimood, M.B.B.S., MD., Ph.D.,
Chairperson, Research Committee & Principal

Dr. Biju George, M.B.B.S., MD., DM.,
Deputy Chairperson,
Secretary, Ethics Committee, IRB
Additional Vice-Principal (Research)

December 13, 2016.

Dr. Kevin John,
PG Registrar,
Department of Medicine,
Christian Medical College,
Vellore – 632 002.

Sub: **Fluid Research Grant NEW PROPOSAL:**
Clinical characteristics, Risk factors and long term Outcomes in patients with acute decompensate Heart Failure.
Dr. Kevin John, Employment Number: 29540, Dr. Thambu David Sudarsanam, Employment Number: 30008, Professor and Head, Dr. Turaka Vijay Prakash, Employment Number: 28591Associate Professor, Dr. Punitha J.V, Assistant Professor, Employment Number: 31544, Dr. Maria Koshy, Assistant Professor, Employment Number: 29126, Dr. Gina Maryann Chiandy Employment Number: 29122, Assistant Professor, Dr. Karthik G, Assistant Professor, Employment Number: 29074, Department of General Medicine. Dr. Visalakshi Jeyaseelan, Department of Biostatistics.

Ref: IRB Min. No. 10416 dated 05.12.2016

Dear Dr. Kevin John,

The Institutional Review Board (**Blue**, Research and Ethics Committee) of the Christian Medical College, Vellore, reviewed and discussed your project titled "Clinical characteristics, Risk factors and long term Outcomes in patients with acute decompensate Heart Failure" on December 05th 2016. I am quoting below the minutes of the meeting.

The Committee raises the following queries:

1. What is the standard practice at present
2. How is the prediction in the Seattle model – is it in percentage?
3. Is it validated in the Indian population
4. How long will the patients be followed up for
5. Will you be able to collect all the variables in the retrospective arm
6. Enclose data collection sheet
7. Keep the font uniform in your write up
8. How will you get the consent form by mail
9. Tamil information sheet – no contact number

1 of 2

Ethics Committee Blue, Office of Research, 1st Floor, Carman Block, Christian Medical College, Vellore, Tamil Nadu 632 002
Tel: 0416 – 2284294. 2284202 Fax: 0416 – 2262788, 2284481 E-mail: research@cmcvellore.ac.in

Dr. B.J. Prashantham, M.A., M.A., Dr. Min (Clinical)
Director, Christian Counseling Center,
Chairperson, Ethics Committee.

Dr. Anna Benjamin Pulimood, M.B.B.S., MD., Ph.D.,
Chairperson, Research Committee & Principal

Dr. Biju George, M.B.B.S., MD., DM.,
Deputy Chairperson,
Secretary, Ethics Committee, IRB
Additional Vice-Principal (Research)

10. Delete the word sponsor
11. Add limitation of the study

Drs. Kevin John Turaka Vijay Prakash and Thambu David were present during the presentation of the proposal and satisfactorily responded to the queries raised by the Members. After discussion, it was resolved to **ACCEPT the proposal after receiving the suggested modifications and answers to the queries.**

Note:
1. Kindly HIGHLIGHT the modifications in the revised proposal.
2. Keep a covering letter and point out the answer to the queries.
3. Reply to the queries should be submitted within 3 months duration from the time of the thesis/ protocol presentation, if not the thesis/protocol have to be resubmitted to the IRB.
4. The checklist has to be sent along with the answers to queries.

Email the details to research@cmcvellore.ac.in and send a hard copy through internal dispatch to Dr. Biju George, Addl. Vice-Principal (Research), Principal's Office, CMC.

Yours sincerely,

Dr. Biju George
Secretary (Ethics Committee)
Institutional Review Board.

CHRISTIAN MEDICAL COLLEGE
VELLORE
INDIA
Dr. BIJU GEORGE
MBBS., MD., DM.
SECRETARY - (ETHICS COMMITTEE)
Institutional Review Board,
Christian Medical College, Vellore - 632 002.

Cc: Dr. Thambu David, Department of Medicine, CMC Vellore.

IRB Min. No. 10416 dated 05.12.2016

Ethics Committee Blue, Office of Research, 1st Floor, Carman Block, Christian Medical College, Vellore, Tamil Nadu 632 002
Tel: 0416 – 2284294. 2284202 Fax: 0416 – 2262788, 2284481 E-mail: research@cmcvellore.ac.in

11.1.2 IRB Approval Letter

OFFICE OF RESEARCH
INSTITUTIONAL REVIEW BOARD (IRB)
CHRISTIAN MEDICAL COLLEGE, VELLORE, INDIA

Dr. B.J. Prashantham, M.A., M.A., Dr. Min (Clinical)
Director, Christian Counseling Center,
Chairperson, Ethics Committee.

Dr. Anna Benjamin Pulimood, M.B.B.S., MD., Ph.D.,
Chairperson, Research Committee & Principal

Dr. Biju George, M.B.B.S., MD., DM.,
Deputy Chairperson,
Secretary, Ethics Committee, IRB
Additional Vice-Principal (Research)

January 08; 2017

Dr. Kevin John,
PG Registrar,
Department of Medicine - 2,
Christian Medical College,
Vellore - 632 004.

Sub: **Fluid Research Grant NEW PROPOSAL:**
Clinical characteristics, Risk factors and long term Outcomes in patients with acute decompensate Heart Failure.
Dr. Kevin John, Employment Number: 29540, Dr. Thambu David Sudarsanam, Employment Number: 30008, Professor and Head, Dr. Turaka Vijay Prakash, Employment Number: 28591Associate Professor, Dr. Punitha J.V, Assistant Professor, Employment Number: 31544, Dr. Maria Koshy, Assistant Professor, Employment Number: 29126, Dr. Gina Maryann Chiandy Employment Number: 29122, Assistant Professor, Dr. Karthik G, Assistant Professor, Employment Number: 29074, Department of General Medicine. Dr. Visalakshi Jeyaseelan, Department of Biostatistics

Ref: IRB Min No: 10416 [OBSERVE] dated 05.12.2016

Dear Dr. Kevin John,

I enclose the following documents:-

1. Institutional Review Board approval 2. Agreement

Could you please sign the agreement and send it to Dr. Biju George, Addl. Vice Principal (Research), so that the grant money can be released.

With best wishes,

Dr. Biju George
Secretary (Ethics Committee)
Institutional Review Board

Dr. BIJU GEORGE
MBBS, MD, DM
SECRETARY - (ETHICS COMMITTEE)
Institutional Review Board,
Christian Medical College, Vellore - 632 002.

Cc: Dr. Thambu David, Dept. of Medicine - 2, CMC, Vellore

Ethics Committee Blue, Office of Research, 1st Floor, Carman Block, Christian Medical College, Vellore, Tamil Nadu 632 002
Tel: 0416 – 2284294. 2284202 Fax: 0416 – 2262788, 2284481 E-mail: research@cmcvellore.ac.in

OFFICE OF RESEARCH
INSTITUTIONAL REVIEW BOARD (IRB)
CHRISTIAN MEDICAL COLLEGE, VELLORE, INDIA

Dr. B.J. Prashantham, M.A., M.A., Dr. Min (Clinical)
Director, Christian Counseling Center,
Chairperson, Ethics Committee.

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Chairperson, Research Committee & Principal

Dr. Biju George, M.B.B.S., MD., DM.,
Deputy Chairperson,
Secretary, Ethics Committee, IRB
Additional Vice-Principal (Research)

January 08, 2017

Dr. Kevin John,
PG Registrar,
Department of Medicine - 2,
Christian Medical College,
Vellore - 632 004.

Sub: **Fluid Research Grant NEW PROPOSAL:**
Clinical characteristics, Risk factors and long term Outcomes in patients with acute decompensate Heart Failure.
Dr. Kevin John, Employment Number: 29540, Dr. Thambu David Sudarsanam, Employment Number: 30008, Professor and Head, Dr. Turaka Vijay Prakash, Employment Number: 28591Associate Professor, Dr. Punitha J.V. Assistant Professor, Employment Number: 31544, Dr. Maria Koshy, Assistant Professor, Employment Number: 29126, Dr. Gina Maryann Chiandy Employment Number: 29122, Assistant Professor, Dr. Karthik G, Assistant Professor, Employment Number: 29074, Department of General Medicine. Dr. Visalakshi Jeyaseelan, Department of Biostatistics

Ref: IRB Min No: 10416 [OBSERVE] dated 05.12.2016

Dear Dr. Kevin John,

The Institutional Review Board (Blue, Research and Ethics Committee) of the Christian Medical College, Vellore, reviewed and discussed your project titled "Clinical characteristics, Risk factors and long term Outcomes in patients with acute decompensate Heart Failure" on December 05th 2016.

The Committee reviewed the following documents:

1. IRB Application format
2. Patient Information Sheet and Consent Form (English, Tamil, Hindi, Telugu)
3. Cvs of Drs. Punitha, Thambu David, Vijay, Gina Chandy, Karthik, Kevin, Maria.
4. No. of documents 1 – 3

The following Institutional Review Board (Blue, Research & Ethics Committee) members were present at the meeting held on December 05th 2016 in the BRTC Conference Room, Christian Medical College, Bagayam, Vellore 632002.

2 of 4

Dr. B.J. Prashantham, M.A., M.A., Dr. Min (Clinical)
Director, Christian Counseling Center,
Chairperson, Ethics Committee.

Dr. Anna Benjamin Pulimood, M.B.B.S., MD., Ph.D.,
Chairperson, Research Committee & Principal

Dr. Biju George, M.B.B.S., MD., DM.,
Deputy Chairperson,
Secretary, Ethics Committee, IRB
Additional Vice-Principal (Research)

Name	Qualification	Designation	Affiliation
Dr. Biju George	MBBS, MD, DM	Professor, Haematology, Research), Additional Vice Principal , Deputy Chairperson (Research Committee), Member Secretary (Ethics Committee), IRB, CMC,Vellore	Internal, Clinician
Dr. B. J. Prashantham	MA(Counseling Psychology), MA (Theology), Dr. Min (Clinical Counselling)	Chairperson, Ethics Committee, IRB. Director, Christian Counseling Centre, Vellore	External, Social Scientist
Dr. Ratna Prabha	MBBS, MD (Pharma)	Associate Professor, Clinical Pharmacology, CMC, Vellore	Internal, Pharmacologist
Dr. Rekha Pai	BSc, MSc, PhD	Associate Professor, Pathology, CMC, Vellore	Internal,Basic Medical Scientist
Rev. Joseph Devaraj	BSc, BD	Chaplaincy Department, CMC, Vellore	Internal, Social Scientist
Mr. C. Sampath	BSc, BL	Advocate, Vellore	External, Legal Expert
Dr. Simon Pavamani	MBBS, MD	Professor, Radiotherapy, CMC, Vellore	Internal, Clinician
Dr. Rajesh Kannangai	MD, PhD.	Professor, Clinical Virology, CMC, Vellore	Internal, Clinician
Ms. Grace Rebekha	M.Sc., (Biostatistics)	Lecturer, Biostatistics, CMC, Vellore	Internal, Statistician
Mrs. Pattabiraman	BSc, DSSA	Social Worker, Vellore	External, Lay Person
Dr. Anuradha Rose	MBBS, MD, MHSC (Bioethics)	Associate Professor, Community Health, CMC, Vellore	Internal, Clinician
Dr. Balamugesh	MBBS, MD(Int Med), DM, FCCP (USA)	Professor, Pulmonary Medicine, CMC, Vellore	Internal, Clinician

IRB Min No: 10416 [OBSERVE] dated 05.12.2016

Ethics Committee Blue, Office of Research, 1st Floor, Carman Block, Christian Medical College, Vellore, Tamil Nadu 632 002
Tel: 0416 – 2284294. 2284202 Fax: 0416 – 2262788, 2284481 E-mail: research@cmcvellore.ac.in

Dr. B.J. Prashantham, M.A., M.A., Dr. Min (Clinical)
Director, Christian Counseling Center,
Chairperson, Ethics Committee.

Dr. Anna Benjamin Pulimood, M.B.B.S., MD., Ph.D.,
Chairperson, Research Committee & Principal

Dr. Biju George, M.B.B.S., MD., DM.,
Deputy Chairperson,
Secretary, Ethics Committee, IRB
Additional Vice-Principal (Research)

Dr. Santhanam Sridhar	MBBS, DCH, DNB	Professor, Neonatology, CMC, Vellore	Internal, Clinician
Mrs. Emily Daniel	MSc Nursing	Professor, Medical Surgical Nursing, CMC, Vellore	Internal, Nurse
Dr. Mathew Joseph	MBBS, MCH	Professor, Neurosurgery, CMC, Vellore	Internal, Clinician

We approve the project to be conducted as presented.

Kindly provide the total number of patients enrolled in your study and the total number of withdrawals for the study entitled: "Clinical characteristics, Risk factors and long term Outcomes in patients with acute decompensate Heart Failure" on a monthly basis. Please send copies of this to the Research Office (research@cmcvellore.ac.in).

Fluid Grant Allocation:

A sum of 55,073/- INR (Rupees Fifty five Thousand Seventy Three Only) will be granted for 18 months.

Yours sincerely,

CHRISTIAN MEDICAL COLLEGE VELLORE INDIA

Dr. Biju George
Secretary (Ethics Committee)
Institutional Review Board

Dr. BIJU GEORGE
MBBS., MD., DM.
SECRETARY - (ETHICS COMMITTEE)
Institutional Review Board,
Christian Medical College, Vellore - 632 002.

IRB Min No: 10416 [OBSERVE] dated 05.12.2016

11.1.3 IRB Fluid Research Grant account opened- acknowledgement

Accounts Projects <accounts_projects@cmcvellore.ac.in> Thu, Feb 2, 2017, 1:04 PM
to me, researchothers, thambu

CHRISTIAN MEDICAL COLLEGE
Office of the Treasurer

Date: 02-02-2017

Dear Dr. Kevin John

As requested by the Vice-Principal (Research) with the IRB Minute No. 10416 a new Fluid research account opened for your Project, the account no are as follows:-

22 Z 109

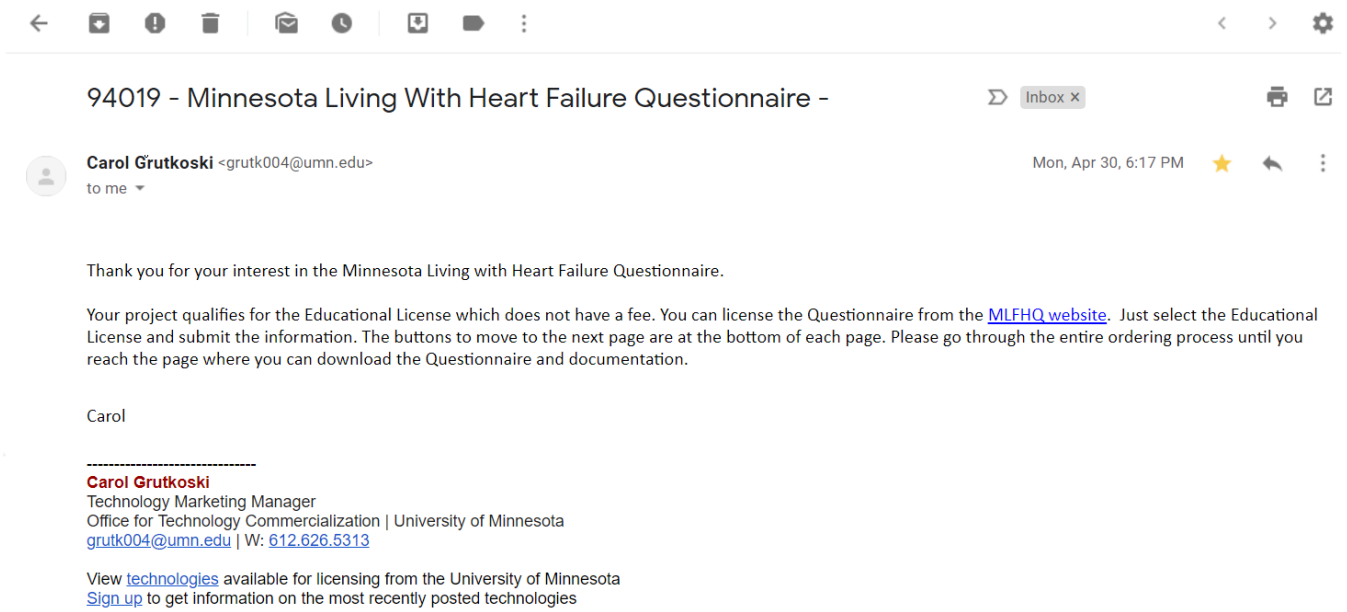
This is for your information

Thanking you.

Yours sincerely

P. BASKARAN
Sr. Manager (F&A)

11.2 Minnesota Living With Heart Failure Questionnaire- License Agreement



94019 - Minnesota Living With Heart Failure Questionnaire - Inbox ×

Carol Grutkoski <grutk004@umn.edu> Mon, Apr 30, 6:17 PM
to me

Thank you for your interest in the Minnesota Living with Heart Failure Questionnaire.

Your project qualifies for the Educational License which does not have a fee. You can license the Questionnaire from the MLFHQ website. Just select the Educational License and submit the information. The buttons to move to the next page are at the bottom of each page. Please go through the entire ordering process until you reach the page where you can download the Questionnaire and documentation.

Carol

Carol Grutkoski
Technology Marketing Manager
Office for Technology Commercialization | University of Minnesota
grutk004@umn.edu | W: 612.626.5313

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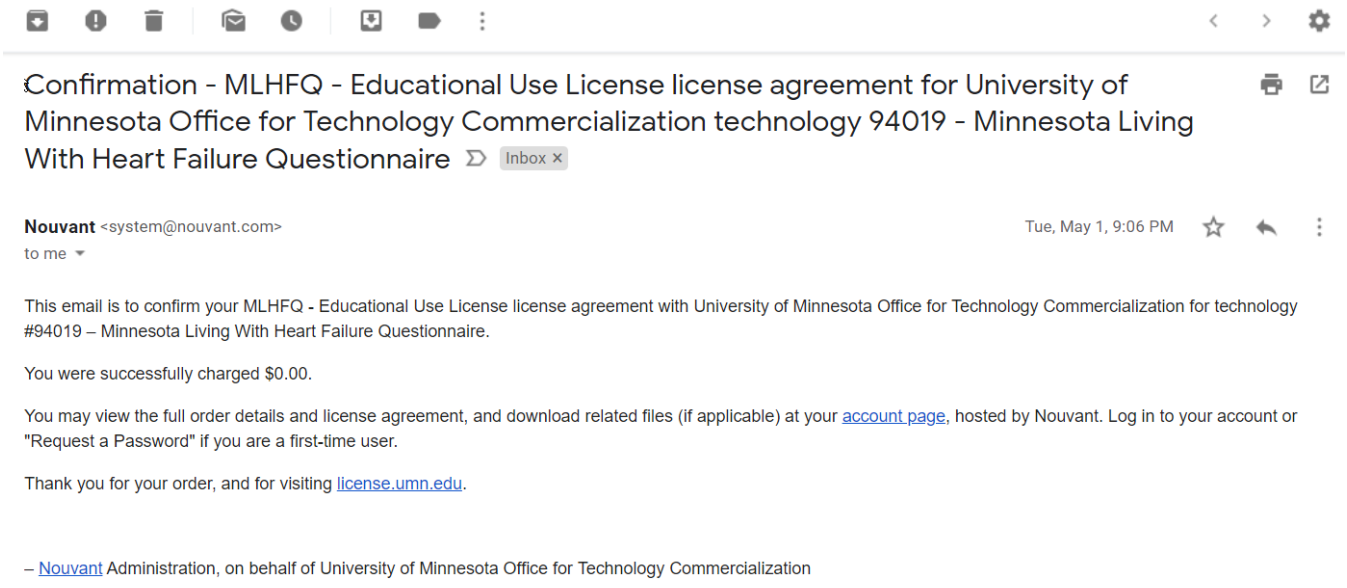


Confirmation - MLHFQ - Educational Use License license agreement for University of Minnesota Office for Technology Commercialization technology 94019 - Minnesota Living With Heart Failure Questionnaire Inbox ×

Nouvant <system@nouvant.com> Tue, May 1, 9:06 PM
to me

This email is to confirm your MLHFQ - Educational Use License license agreement with University of Minnesota Office for Technology Commercialization for technology #94019 – Minnesota Living With Heart Failure Questionnaire.

You were successfully charged $0.00.

You may view the full order details and license agreement, and download related files (if applicable) at your account page, hosted by Nouvant. Log in to your account or "Request a Password" if you are a first-time user.

Thank you for your order, and for visiting license.umn.edu.

– Nouvant Administration, on behalf of University of Minnesota Office for Technology Commercialization

11.3 Clinical research form

11.3.1 Case Report Questionnaire (Prospective)

CASE REPORT FORM-PROSPECTIVE

Demography and Baseline Data

Name:		Hospital Number:	
Address:	☐Urban ☐Rural		
Contact numbers:	1. 2. 3. 4.		
Age:	Sex:	Date of Admission:	Date of Discharge:
Any previous admission for heart failure?Yes ☐ No ☐		Did the patient die in hospital? Yes ☐ No ☐	
Duration of hospital stay	Duration of stay in ICU	Duration of stay in the ward	

Socioeconomic Details:

Marital Status	☐Married code-1 ☐Unmarried code-2 ☐Divorced code-3	
Modified Kuppuswamy Scale	Total Score to be filled after calculating components below	
a.Education of Head	☐Profession or honors	7 ☐
	☐Graduate or post graduate	6 ☐
	☐Intermediate or post high school diploma	5 ☐
	☐High school certificate	4 ☐
	☐Middle school certificate	3 ☐
	☐Primary school certificate	2 ☐
	☐Illiterate	1 ☐
b.Occupation of head	☐Profession	10☐
	☐Semi-profession	6 ☐
	☐Clerical, Shop-owner, farmer	5 ☐
	☐Skilled worker	4 ☐
	☐Semi-skilled worker	3 ☐
	☐Unskilled worker	2 ☐
	☐Unemployed	1 ☐
c.Family income per month	Rs 43184 and above	12☐
	Rs 21592 - Rs 43184	10☐
	Rs 16194 - Rs 21591	6 ☐
	Rs 10796 - Rs 16193	4 ☐
	Rs 6478 - Rs 10795	3 ☐
	Rs 2181 - Rs 6477	2 ☐
	Rs 2180 and below	1 ☐
Total Score	Total Score :☐☐ (to be filled after calculating components)	

Kuppuswamy Class	**Total score**	**SES class**
	26-29	☐Upper code-1
	16-25	☐Upper Middle code-2
	11-15	☐Lower Middle code-3
	5-10	☐Upper Lower code-4
	<5	☐Lower code-5

SECTION-B

Does the patient satisfy diagnostic criteria of heart failure? Boston Criteria(tick appropriate)

History:	
○ Rest dyspnea	4 points☐
○ Orthopnea	4 points ☐
○ Paroxysmal nocturnal dyspnea	3 points ☐
○ Dyspnea on walking on level	2 points ☐
○ Dyspnea on climbing	1 points☐
Physical Examination:	
○ Heart rate abnormality -	1 point☐ (rate 91-110 beats per minute) 2 points ☐ (rate >110 beats per minute)

1

○ Jugular venous pressure elevation	2 points ☐(>6cm of H_2O) 3 points ☐ (>6cm of H_2O with hepatomegaly and edema)
○ Lung crackles (1–2 points)	1 point ☐basilar 2 points ☐More than basilar
○ Wheezing	3 points ☐
○ Third heart sound	3 points ☐
Chest Radiograph:	
○ Alveolar pulmonary edema	4 points ☐
○ Interstitial pulmonary edema	3 points ☐
○ Bilateral pleural effusions	3 points ☐
○ Cardiothoracic ratio ≥0.50	3 points ☐
○ Upper-zone flow redistribution	2 points ☐
Total Score No more than 4 points are allowed from each of three categories; hence the composite score (the sum of the subtotal from each category) has a possible maximum of 12 points. The diagnosis of heart failure is classified as "definite" at a score of 8 to 12 points, "possible" at a score of 5 to 7 points, and "unlikely" at a score of 4 points or less.	☐☐
Definite HEART FAILURE 8–12 pts, possible 5–7pts, unlikely 4 pts or less	

Diagnosis based on Boston Criteria (tick appropriate)	☐(8-12 points)"Definite" Heart Failure code-1 ☐(7 or Less than 7)"Possible" or "Unlikely" Heart Failure code-2

CLINICAL PROFILE:

Presenting Complaints(tick the appropriate column) :

Chest Pain Yes ☐No ☐ Duration NYHA class	Dyspnea Yes ☐No ☐ Duration NYHA class
Palpitations Yes ☐No ☐ Duration	Leg swelling Yes ☐No ☐ Duration
Sweating Yes ☐No ☐ Duration	Syncope Yes ☐No ☐ Duration
Orthopnea Yes ☐No ☐ Duration	PND Yes ☐No ☐ Duration
Fatigue Yes ☐No ☐ Duration	Cough Yes ☐No ☐ Duration
Fever Yes ☐No ☐ Duration	Effort Tolerance(distance in level ground)
Overall NYHA class at admission(highest NYHA score)	NYHA class 1☐ 2☐ 3☐ 4☐
Overall NYHA class at discharge(highest NYHA score)	NYHA class 1☐ 2☐ 3☐ 4☐
AHA/ACC Stage	Stage A☐ B☐ C☐ D☐

Examination findings at admission:

Pulse rate	Blood pressure	Respiratory rate	Saturation at admission-
GCS		Intubation Yes ☐No ☐ Duration	
Waist circumference	Hip circumference	Waist / Hip ratio:	
Height	Weight in Kg	BMI	
(Circle) Pallor / Icterus / Clubbing / Cyanosis / Lymphadenoapthy /Pedal odema / Elevated JVP			
(Circle) CVS: s3 / s4 RS : Crepts If yes, what is the level: ☐Basal , fine crepitations code-1 ☐Coarse crepitations ,till <50% height of axilla code-2 ☐ Coarse crepitations ,till >50% height of axilla code-3			
Murmur : MS / MR/ TS / TR/ AS/ AR/PS/PR Hepatomegaly Yes ☐ No ☐ Is there shifting dullness?Yes ☐ No ☐			

Risk Factors(past history):

Diabetes Mellitus Yes ☐ No ☐ Duration	Hypertension Yes ☐ No ☐ Duration
Dyslipidaemia Yes ☐ N o ☐	Coronary Artery Disease Yes ☐ No ☐
Previous ACS Yes ☐ No ☐	Known Case of Heart Failure Yes ☐No ☐
Etiology: ☐ IHD(1) /☐ RHD (2)/ ☐Non RHD valve(3) / ☐DCM (4)/ ☐HCM(5) /☐RCM(6)	

CASE REPORT FORM-PROSPECTIVE

Chronic kidney disease Yes ☐ No ☐	Chronic Liver Disease Yes ☐ No ☐	Stroke/TIA in past(CVA) Yes ☐ No ☐
Does the patient have Peripheral arterial occlusive Disease? Yes ☐ No ☐		
Hypothyroidism Yes ☐ No ☐	Cushings Yes ☐ No ☐	
Valvular heart disease? Yes ☐ No ☐ Is RHD the etiology? Yes ☐ No ☐	☐MS ☐MR ☐TS ☐TR ☐AS ☐AR ☐PS ☐PR	
Alcohol consumption Yes ☐ No ☐ Duration	Smoking Yes ☐ No ☐ Duration	
Tobacco chewing Yes ☐ No ☐ Duration	Tuberculosis in Past Yes ☐ No ☐	
Atrial Fibrillation Yes ☐ No ☐ Anticoagulation Yes ☐ No ☐	Warfarin Yes ☐ No ☐ Warfarin Dose ☐☐mg	
HIV infection Yes ☐ No ☐ Last CD4+ count	Bronchial Asthma Yes ☐ No ☐	
COPD Yes ☐ No ☐	Past LRTI Yes ☐ No ☐	
Physical activity: IPAQ Score: (refer appendix) Categorical Score: Inactive☐ (code1) Minimally Active☐ (code-2) HEPA active☐ (code-3) Continuous Score☐☐☐☐☐☐☐☐ MET-minutes/week		
Is the patient pregnant now Yes ☐ No ☐	Gestational age in weeks: ☐☐ weeks	
Is the patient in the post partum period Yes ☐ No ☐	Weeks post delivery☐☐ weeks Type of delivery-	
Past history of cancer Yes ☐ No ☐	Treatment: Chemotherapy: Yes ☐ No ☐ Radiotherapy: Yes ☐ No ☐	
Were any of the drugs used cardiotoxic? Yes ☐ No ☐	Diet: ☐Veg code-1 ☐non Veg code-2	

Dietary habits : Food Frequency chart-

	Never	Once a month	> once a Month,< once a week	Once a week	<3 times /week	>/=3 times week	Daily
Egg yolk	☐code 1	☐ code 2	☐ code 3	☐ code 4	☐ code 5	☐ code 6	☐ code 7
Milk (full fat)	☐code 1	☐ code 2	☐ code 3	☐ code 4	☐ code 5	☐ code 6	☐ code 7
Red meat (Beef, Mutton)	☐code 1	☐ code 2	☐ code 3	☐ code 4	☐ code 5	☐ code 6	☐ code 7
White meat (Chicken)	☐code 1	☐ code 2	☐ code 3	☐ code 4	☐ code 5	☐ code 6	☐ code 7
Organ meat (Brain, Liv Kidney)	☐code 1	☐ code 2	☐ code 3	☐ code 4	☐ code 5	☐ code 6	☐ code 7
Shell fish (Prawn, crab, Lobster)	☐code 1	☐ code 2	☐ code 3	☐ code 4	☐ code 5	☐ code 6	☐ code 7
Butter / Ghee	☐code 1	☐ code 2	☐ code 3	☐ code 4	☐ code 5	☐ code 6	☐ code 7
Fried Snacks (Vadai, Bonda, Puff)	☐code 1	☐ code 2	☐ code 3	☐ code 4	☐ code 5	☐ code 6	☐ code 7

Oil consumption(circle)

Soybean oil / Safflower oil / Coconut oil / Coconut oil / Sunflower oil / Cotton seed oil

Quantity per person per day - ml

Regular Medication details(at admission) :

a. Antihypertensive and anti-failure medications: (circle all applicable)

ACE I / ARB / Aldosterone antagonist / CCB / b -blocker / Digoxin / hydralazine

Diuretic / Nitrate / alpha blocker

IF applicable: Beta blocker – carvediolo / metoprolol / bisoprolol /others

IF applicable: Diuretic – Dytor / Furosemide / Others

b. Anti Diabetic Medications : (circle all applicable)

Metformin / Sulphonylurea / Alpha glucosidase inhibitors / Thiazolidinones / Dipeptidyl Peptidase Inhibitors

Insulin Yes ☐ No ☐ Duration of insulin

c. Antiplatelets : (circle all applicable)

Aspirin / Clopidogrel / Both

d. Statins :

Atorvastatin / Simvastatin / Rosuvastatin / Others

e. Warfarin: Yes ☐ No ☐

f. Steroid: Yes ☐ No ☐

ECG (at admission):

(circle)ST Elevation / ST Depression in mm Rate - /min

LBBB/RBBB/ None LVH Yes ☐ No ☐ Arrythmia Yes ☐ No ☐ Specify

Chest X – Ray(at admission) (circle) code R-1 , L-2 , bilateral -3

Pulmonary edema R /L /BL Pleural effusion R /L /BL Cardiomegaly

ECHO:

LVEF TAPSE E/A

(Circle)MS / MR / TS/ TR/AS/AR/PS/PR

Tick appropriate	☐HFrEF (LVEF<40%) Code 1	☐HFmrEF(LVEF 40-49%) Code 2	☐HFpEF(LVEF>= 50%) Code 3

Cardiac Enzymes : At admission Trop T CK- MB

After 6 hours Trop T CK- MB

Investigations(at admission / first value) :

Hb	Urea	Creatinine	Latest Hba1c
Total Chol	Triglycerides	HDL	LDL
Sodium	Potassium	Uric Acid	NT pro BNP
S. Osmolarity	ABG: PH	Lactate	

Treatment :

NIV Yes ☐ No ☐ Duration Intubation Yes ☐ No ☐ Duration

Drugs:

a. Antihypertensive and anti-failure medications: (circle all applicable)

ACE I / ARB / Aldosterone antagonist / CCB / b -blocker / Digoxin / hydralazine

Diuretic / Nitrate / alpha blocker

IF applicable: Beta blocker – carvediolo / metoprolol / bisoprolol /others

IF applicable: Diuretic – Dytor / Furosemide / Others

Cumulative dose of diuretic used

b. Antiplatelets : (circle all applicable)

Aspirin / Clopidogrel / Both

c. Statins :
Atorvastatin / Simvastatin / Rosuvastatin / Others
d. Warfarin: Yes ☐ No ☐
e. Steroid: Yes ☐ No ☐

Discharge advice

a. Antihypertensive and anti-failure medications: (circle all applicable)

ACE I / ARB / Aldosterone antagonist / CCB / b -blocker / Digoxin / hydralazine

Diuretic / Nitrate / alpha blocker

IF applicable: Beta blocker – carvediolo / metoprolol / bisoprolol /others

IF applicable: Diuretic – Dytor / Furosemide / Others

Cumulative dose of diuretic used

b. Anti Diabetic Medications : (circle all applicable)
Metformin / Sulphonylurea / Alpha glucosidase inhibitors / Thiazolidinones / Dipeptidyl Peptidase Inhibitors

Insulin Yes ☐ No ☐

c. Antiplatelets : (circle all applicable)
Aspirin / Clopidogrel / Both

d. Statins :
Atorvastatin / Simvastatin / Rosuvastatin / Others

Warfarin: Yes ☐ No ☐

FINAL DISCHARGE DIAGNOSIS AS PER DISCHARGE SUMMARY (write in full)

Misc:

What was the precipitating factor for heart failure? (circle)

Infection / Non compliance / ACS / Arrhythmia / iatrogenic / Renal failure / Other

Economic Assessment:

Final Bill	Amount paid by patient after concession
Total cost of drugs:	Total cost of accommodation
Total cost of food	Amount paid by patient after concession
Total cost of drugs:	Total cost of accommodation
Total cost of food	Total Direct cost
Total Indirect cost(loss of wages):	Overall amount:

Outcome Measurement:

a. In hospital death Yes ☐ No ☐
If no, MLHFQ score-at discharge ☐☐

b. Alive at one month? Yes ☐ No ☐
Cause of death if applicable ☐Cardiac cause ☐Infection ☐Non compliance ☐Others
MLHFQ Score- ☐☐
Physical activity: IPAQ Score:
Categorical Score: Inactive☐ Minimally Active☐ HEPA active☐
Continuous Score☐☐☐☐☐☐☐☐ MET-minutes/week

c. Alive at 3 month? Yes ☐ No ☐
Cause of death if applicable ☐Cardiac cause ☐Infection ☐Non compliance ☐Others
MLHFQ Score- ☐☐
Physical activity: IPAQ Score:
Categorical Score: Inactive☐ Minimally Active☐ HEPA active☐
Continuous Score☐☐☐☐☐☐☐☐ MET-minutes/week

d. Alive at 6 months? Yes ☐ No ☐
Cause of death if applicable ☐Cardiac cause ☐Infection ☐Non compliance ☐Others
MLHFQ score- ☐☐
Physical activity: IPAQ Score:
Categorical Score: Inactive☐ Minimally Active☐ HEPA active☐
Continuous Score☐☐☐☐☐☐☐☐ MET-minutes/week

e. Alive at 1 year ? Yes ☐ No ☐
Cause of death if applicable ☐Cardiac cause ☐Infection ☐Non compliance ☐Others
MLHFQ score- ☐☐
Physical activity: IPAQ Score:
Categorical Score: Inactive☐ Minimally Active☐ HEPA active☐
Continuous Score☐☐☐☐☐☐☐☐ MET-minutes/week

Last Date Follow up ☐☐/☐☐/☐☐☐☐ dd/mm/yyyy
Duration since admission, last follow up ☐☐☐☐days
Status at last follow up: Alive / Dead / Not know(lost to follow up)
Cause of death if applicable ☐Sudden cardiac death ☐Pump failure ☐Infection ☐Others
Lost to follow up before study ended? Yes ☐ No ☐ (yes=censored data)
Cause of death at follow up_____

Predicted outcome according to Seattle heart failure model:
1 year survival ☐☐%
1 year mortality ☐☐%
Mean life expectancy ☐☐.☐years

I. Appendix

INTERNATIONAL PHYSICAL ACTIVITY QUESTIONNAIRE:

Think about all the vigorous activities that you did in the last 7 days. Vigorous physical activities refer to activities that take hard physical effort and make you breathe much harder than normal. Think *only* about those physical activities that you did for at least 10 minutes at a time.

1. During the last 7 days, on how many days did you do vigorous physical activities like heavy lifting, digging, aerobics, or fast bicycling?

☐ days per week

☐ No vigorous physical activities =➔ *Skip to question 3*

2. How much time did you usually spend doing vigorous physical activities on one of those days?

☐☐ hours per day ☐☐☐☐ minutes per day ☐ Don't know/Not sure

Think about all the moderate activities that you did in the last 7 days. Moderate activities refer to activities that take moderate physical effort and make you breathe somewhat harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.

3. During the last 7 days, on how many days did you do moderate physical activities like carrying light loads, bicycling at a regular pace, or doubles tennis? Do not include walking.

☐ days per week

☐ No moderate physical activities ➔ *Skip to question 5*

4. How much time did you usually spend doing moderate physical activities on one of those days?

☐☐ hours per day ☐☐☐☐ minutes per day ☐ Don't know/Not sure

Think about the time you spent walking in the last 7 days. This includes at work and at home, walking to travel from place to place, and any other walking that you have done solely for recreation, sport, exercise, or leisure.

5. During the last 7 days, on how many days did you walk for at least 10 minutes at a time?

☐ days per week

No walking ➔ *Skip to question 7*

6. How much time did you usually spend walking on one of those days?

☐☐ hours per day ☐☐☐☐ minutes per day ☐ Don't know/Not sure

The last question is about the time you spent sitting on weekdays during the last 7 days. Include time spent at work, at home, while doing course work and during leisure time. This may include time spent sitting at a desk, visiting friends, reading, or sitting or lying down to watch television.

7. During the last 7 days, how much time did you spend sitting on a week day?

☐☐ hours per day ☐☐☐☐ minutes per day ☐ Don't know/Not sure

Scoring:

Categorical Score:

Categorical Score- three levels of physical activity are proposed

1. Inactive ☐

- No activity is reported OR
- Some activity is reported but not enough to meet Categories 2 or 3.

2. Minimally Active ☐

Any one of the following 3 criteria

- 3 or more days of vigorous activity of at least 20 minutes per day OR
- 5 or more days of moderate-intensity activity or walking of at least 30 minutes per day

OR

- 5 or more days of any combination of walking, moderate-intensity or vigorous intensity activities achieving a minimum of at least 600 MET-min/week.

3. HEPA (health enhancing physical activie)**active** ☐

Any one of the following 2 criteria

- Vigorous-intensity activity on at least 3 days and accumulating at least 1500 METminutes/week

OR

- 7 or more days of any combination of walking, moderate-intensity or vigorous intensity activities achieving a minimum of at least 3000 MET-minutes/week

---

Continuous Score:

MET values and Formula for computation of Met-minutes

Walking MET-minutes/week = 3.3 * walking minutes * walking days
=3.3 x ☐☐☐☐ x ☐ =☐☐☐☐☐☐ Walking MET-minutes/week

Moderate MET-minutes/week = 4.0 * moderate-intensity activity minutes * moderate days
=4x ☐☐☐☐ x ☐ =☐☐☐☐☐☐ Moderate MET-minutes/week

Vigorous MET-minutes/week = 8.0 * vigorous-intensity activity minutes * vigorous-intensity days
=8x ☐☐☐☐ x ☐ =☐☐☐☐☐☐ Vigorous MET-minutes/week

A combined total physical activity MET-min/week can be computed as the sum of Walking + Moderate + Vigorous MET-min/week scores.
☐☐☐☐☐☐ + ☐☐☐☐☐☐ + ☐☐☐☐☐☐ = ☐☐☐☐☐☐☐☐ MET-minutes/week

MINNESOTA LIVING WITH HEART FAILURE QUESTIONNAIRE(MLHFQ):

The following questions ask how much your heart failure (heart condition) affected your life during the past month(4 weeks). After each question, circle the 0, 1, 2, 3, 4 or 5 to show how much your life was affected. If a question does not apply to you, circle the 0 after that question.:

Did your heart failure prevent you from living as you wanted during the past month (4 weeks) by:	**:0-no 1-Very little 5-very much**
1. Causing swelling in your ankles or legs?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5
2. Making you sit or lie down to rest during the day?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5
3. Making your walking about or climbing stairs difficult?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5
4. Making your working around the house or yard difficult?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5
5. Making your going places away from home difficult?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5
6. Making your sleeping well at night difficult?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5
7. Making your relating to or doing things with your friends or family difficult?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5
8. Making your working to earn a living difficult?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5
9. Making your recreational pastimes, sports or hobbies difficult?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5
10. Making your sexual activities difficult?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5
11. Making you eat less of the foods you like?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5
12. Making you short of breath?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5
13. Making you tired, fatigued, or low on energy?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5
14. Making you stay in a hospital?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5
15. Costing you money for medical care?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5
16. Giving you side effects from treatments?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5
17. Making you feel you are a burden to your family or friends?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5
18. Making you feel a loss of self-control in your life?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5
19. Making you worry?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5
20. Making it difficult for you to concentrate or remember things?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5
21. Making you feel depressed?	☐0 ☐1 ☐2 ☐3 ☐4 ☐5

Total Score ☐☐☐

11.3.2 Case Report Questionnaire (Retrospective)

CASE REPORT FORM-RETROSPECTIVE

Demography and Baseline Data

Name:		Hospital Number:	
Address:	☐Urban ☐Rural		
Contact numbers:	1. 2.		
Age:	Sex:	Date of Admission:	Date of Discharge:
Any previous admission for heart failure?Yes ☐ No ☐		Did the patient die in hospital? Yes ☐ No ☐	
Duration of hospital stay	Duration of stay in ICU	Duration of stay in the ward	
Did the patient give consent to be included in the study via telephone correspondence? Yes ☐ No ☐			

SECTION-B

CLINICAL PROFILE:

Presenting Complaints(tick the appropriate column) :

Chest Pain Yes ☐No ☐ Duration NYHA class	Dyspnea Yes ☐No ☐ Duration NYHA class
Palpitations Yes ☐No ☐ Duration	Leg swelling Yes ☐No ☐ Duration
Sweating Yes ☐No ☐ Duration	Syncope Yes ☐No ☐ Duration
Orthopnea Yes ☐No ☐ Duration	PND Yes ☐No ☐ Duration
Fatigue Yes ☐No ☐ Duration	Cough Yes ☐No ☐ Duration
Fever Yes ☐No ☐ Duration	Effort Tolerance(distance in level ground)
Overall NYHA class at admission(highest NYHA score)	NYHA class 1☐ 2☐ 3☐ 4☐
Overall NYHA class at discharge(highest NYHA score)	NYHA class 1☐ 2☐ 3☐ 4☐
AHA/ACC Stage	Stage A☐ B☐ C☐ D☐

Examination findings at admission:

Pulse rate	Blood pressure	Respiratory rate	Saturation at admission-
GCS		Intubation Yes ☐No ☐ Duration	
Waist circumference	Hip circumference		Waist / Hip ratio:
Height	Weight in Kg		BMI
(Circle) Pallor / Icterus / Clubbing / Cyanosis / Lymphadenoapthy /Pedal odema / Elevated JVP			
(Circle) CVS: s3 / s4 RS : Crepts If yes, what is the level: ☐Basal , fine crepitations code-1 ☐Coarse crepitations ,till <50% height of axilla code-2 ☐ Coarse crepitations ,till >50% height of axilla code-3			
Murmur : MS / MR/ TS / TR/ AS/ AR/PS/PR Hepatomegaly Yes ☐ No ☐ Is there shifting dullness?Yes ☐ No ☐			

Risk Factors(past history):

Diabetes Mellitus Yes ☐ No ☐ Duration	Hypertension Yes ☐ No ☐ Duration	
Dyslipidaemia Yes ☐ N o ☐	Coronary Artery Disease Yes ☐ No ☐	
Previous ACS Yes ☐ No ☐	Known Case of Heart Failure Yes ☐No ☐	
Etiology: ☐ IHD(1) /☐ RHD (2)/ ☐Non RHD valve(3) / ☐DCM (4)/ ☐HCM(5) /☐RCM(6)		
Chronic kidney disease Yes ☐ No ☐	Chronic Liver Disease Yes ☐ No ☐	Stroke/TIA in past(CVA) Yes ☐ No ☐

Does the patient have Peripheral arterial occlusive Disease? Yes ☐ No ☐			
Hypothyroidism Yes ☐ No ☐	Cushings Yes ☐ No ☐		
Valvular heart disease? Yes ☐ No ☐ Is RHD the etiology? Yes ☐ No ☐	☐MS ☐MR ☐TS ☐TR ☐AS ☐AR ☐PS ☐PR		
Alcohol consumption Yes ☐ No ☐ Duration		Smoking Yes ☐ No ☐ Duration	
Tobacco chewing Yes ☐ No ☐ Duration		Tuberculosis in Past Yes ☐ No ☐	
Atrial Fibrillation Yes ☐ No ☐ Anticoagulation Yes ☐ No ☐ Warfarin Yes ☐ No ☐ Warfarin Dose ☐☐mg			
HIV infection Yes ☐ No ☐ Last CD4+ count		Bronchial Asthma Yes ☐ No ☐	
COPD Yes ☐ No ☐		Past LRTI Yes ☐ No ☐	

ECG (at admission):
(circle)ST Elevation / ST Depression in mm Rate - /min

LBBB/RBBB/ None LVH Yes ☐ No ☐ Arrythmia Yes ☐ No ☐ Specify

Chest X – Ray(at admission) (circle) code R-1 , L-2 , bilateral -3

Pulmonary edema R /L /BL Pleural effusion R /L /BL Cardiomegaly

ECHO:

LVEF TAPSE E/A

(Circle)MS / MR / TS/ TR/AS/AR/PS/PR

Tick appropriate	☐HFrEF (LVEF<40%) Code 1	☐HFmrEF(LVEF 40-49%) Code 2	☐HFpEF(LVEF>= 50%) Code 3

Cardiac Enzymes : At admission Trop T CK- MB

After 6 hours Trop T CK- MB

Investigations(at admission / first value) :

Hb	Urea	Creatinine	Latest Hba1c
Total Chol	Triglycerides	HDL	LDL
Sodium	Potassium	Uric Acid	NT pro BNP
S. Osmolarity	ABG: PH	Lactate	

Discharge advice

a. Antihypertensive and anti-failure medications: (circle all applicable)

ACE I / ARB / Aldosterone antagonist / CCB / b -blocker / Digoxin / hydralazine

Diuretic / Nitrate / alpha blocker

IF applicable: Beta blocker – carvediolo / metoprolol / bisoprolol /others

IF applicable: Diuretic – Dytor / Furosemide / Others

Cumulative dose of diuretic used

b. Anti Diabetic Medications : (circle all applicable)
Metformin / Sulphonylurea / Alpha glucosidase inhibitors / Thiazolidinones / Dipeptidyl Peptidase Inhibitors

Insulin Yes ☐ No ☐

c. Antiplatelets : (circle all applicable)
Aspirin / Clopidogrel / Both

d. Statins :
Atorvastatin / Simvastatin / Rosuvastatin / Others

Warfarin: Yes ☐ No ☐

FINAL DISCHARGE DIAGNOSIS AS PER DISCHARGE SUMMARY (write in full)

Misc:

What was the precipitating factor for heart failure? (circle)

Infection / Non compliance / ACS / Arrhythmia / iatrogenic / Renal failure / Other

Outcome Measurement:

Last Date Follow up ☐☐/☐☐/☐☐☐☐ dd/mm/yyyy

Duration since admission, last follow up ☐☐☐☐days

Status at last follow up: Alive / Dead / Not know(lost to follow up)

Cause of death if applicable ☐Sudden cardiac death ☐Pump failure ☐Infection ☐Others

Lost to follow up before study ended? Yes ☐ No ☐ (yes=censored data)

Cause of death at follow up_____

Predicted outcome according to Seattle heart failure model:

1 year survival ☐☐%

1 year mortality ☐☐%

Mean life expectancy ☐☐.☐years

11.4 Patient information sheet

11.4.1 English

Christian Medical College, Vellore

Department of Medicine

Clinical cHaracteristics, Risk factors and long term OutcoMEs in patients with acute decompensated Heart Failure –CHROME-HF study

Information sheet

If you take part what will you have to do?

If you agree to participate in this study, your base line data will be collected. You will also be administered a questionnaire at admission. Before starting the study you will be asked questions about specific risk factors.

All the other treatments that you are already on will be continued and your regular treatment will not be changed during this study.

After discharge from the hospital, you will receive a phone call from us at one month, 3 months and then 6 monthly intervals for a year and we will ask certain questions. No additional procedures or blood tests will be conducted routinely for this study.

If at any time you experience any problems, you can report this to the doctor.

Can you withdraw from this study after it starts?

Your participation in this study is entirely voluntary and you are also free to decide to withdraw permission to participate in this study. If you do so, this will not affect your usual treatment at this hospital in any way.

What will happen if you develop any study related injury?

We do not expect any injury to happen to you because of taking part in this study.

Will you have to pay anything extra to take part in the study?

You will not incur any extra charges for taking part in this study

Any other treatment that you usually take will continue but the usual arrangements that you have with the hospital will decide how much you pay for this.

What happens after the study is over?

You may or may not benefit from the study that you are a part of. However the conclusions drawn from this study will be useful to manage similar patients in future.

Will your personal details be kept confidential?

The results of this study may be published in a medical journal but you will not be identified by name in any publication or presentation of results. However, your medical notes may be reviewed by people associated with the study, without your additional permission, should you decide to participate in this study.

There will be approximately 300 participants enrolled for the study. You are urged to communicate the health condition to the best of your knowledge

If you have any further questions, please ask

Dr. Kevin John John

Department of Medicine Unit 2

Christian Medical College Hospital

Vellore, Tamilnadu ,632004

Tel: 0416 2282031

Mobile No. 9843687998

email: kevinjohn619@gmail.com

11.4.2Tamil

தகவல் தாள்

ஆய்வு: தலைப்பு: கடுமையான இதய ஈட்டுத்திறனிழந்த நோயாளிகளின் -மருத்துவ பண்புகள், ஆபத்துக் காரணிகள் மற்றும் நீண்ட கால விளைவுகளை காணும் ஆய்வு.

நீங்கள் இதில் கலந்துகொள்ள என்ன செய்ய வேண்டும் ?
இந்த ஆய்வில் பங்ககேற்க ஒப்பு கொண்டால் உங்கள் அடிப்படை விவரங்கள் சேகரிக்கப்படும்.நீங்கள் ஒப்புக்கொண்ட பிறகு கேள்வித்தாள் வழங்கப்படும். ஆய்வு துவங்கும் முன் குறிப்பிட்ட ஆபத்து காரணிகள் பற்றிய கேள்விகள் கேட்கப்படும்.நீங்கள் ஏற்கனவே எடுத்து கொள்ளும் சிகிச்சைகள் அனைத்தும் தொடரும். உங்களின் வழக்கமான சிகிச்சை இந்த ஆய்வின் போது மாற்றப்பட மாட்டாது.மருத்துவமனையிலிருந்து வெளியேறிய பிறகு, மாதம் கூடுதல் நடைமுறைகள் அல்லது இரத்த பரிசோதனைகள் இந்த ஆய்வுக்காக நடத்தப்பட மாட்டாது.ஏதேனும் பிரச்சனை எதிர் கொண்டால் உடனடியாக மருத்துவரிடம் தெரிவியுங்கள்.

தொடங்கியதிலிருந்து இந்த ஆய்வில் இருந்து மீளப்பெற முடியுமா?
இந்த ஆய்வில் உங்கள் பங்களிப்பு முற்றிலும் தன்னார்வற்றது. இதிலிருந்து எப்போதும் விலகிக்கொள்ள முழு அனுமதி உள்ளது. அதனால் உங்கள் வழக்கமான சிகிச்சை பாதிக்காது.

இந்த ஆய்வில் பங்ககேற்பதன் மூலம் ஏதேனும் பாதிப்பு ஏற்படுமா?
இந்த ஆய்வில் பங்ககேற்பதனால் எந்த பாதிப்பும் எற்படாது.

நீங்கள் இந்த ஆய்வினில் பங்கேற்க ஏதேனும் கூடுதலாக செலுத்த வேண்டுமா ?
நீங்கள் இந்த ஆய்வினில் பங்கேற்க கூடுதலாக எதுவும் செலுத்த வேண்டியதில்லை.
உங்களின் வழக்கமான மருத்துவ சிகிச்சை தொடரப்படும்.
இதற்காக
வேறேதும் கட்டணங்கள் விதிக்கப்படுமாயின் அம்முடிவுகள் மருத்துவமனையையே சேரும்.

ஆய்வு முடிந்த பின்னர் என்ன நடக்கும்? நீங்கள் ஆய்வினில் பங்கேற்பது உங்களுக்கு பயனளிக்காமல் போகலாம். எனினும் இந்த ஆய்வில் இருந்து வரையப்பட்ட முடிவுகள் எதிர்காலத்தில் இதேபோன்ற நோயாளிகளை நிர்வகிக்க பயனுள்ளதாக இருக்கும்.

உங்கள் தனிப்பட்ட விவரங்கள் இரகசியமாக வைக்கப்படுமா?
ஆய்வின் முடிவு ஒரு பத்திரிக்கையில் அல்லது ஒரு வழங்கல் மூலமாக வெளியிடப்படலாம்.உங்கள் தனிப்பட்ட விவரங்கள் மற்றும் அடையாளங்கள் வெளியிடப்படாது. எனினும், உங்கள் மருத்துவ குறிப்புகளை ஆய்வு தொடர்புடைய மக்களால், உங்கள் கூடுதல் அனுமதி இல்லாமல், மதிப்பாய்வு செய்யப்படும்
300 பேர் இந்த ஆய்வில் கலந்து கொள்கின்றனர். உங்கள் முழு மற்றும் சரியான விவரங்களை தருமாறு கேட்டுக்கொள்கிறோம்

எந்த கேள்விகள் இருந்தாலும் நீங்கள் தொடர்பு கொள்ள,

டாக்டர்.கெவின் ஜான்
மருத்துவ துறை,யூனிட் 2 ,
கிறிஸ்த்துவ மருத்துவ கல்லூரி மருத்துவமனை
வேலூர்,
தமிழ்நாடு
632004
தொலைபேசி எண்:9843687998
ஏ-மெயில்: kevinjohn619@gmail.com

11.4.3Telugu

క్రిస్టియన్ మెడికల్ కాలేజీ హాస్పిటల్, వెల్లూరు
వైద్య శాస్త్ర విభాగము

తీవ్రమైన గుండె జబ్బుగల రోగుల క్లినికల్ లక్షణాలు, ప్రమాద కారకాలు మరియు దీర్ఘ కాలపు ఫలితాలు-ఒక అధ్యయనము

సమాచార పత్రం

ఇందులో పాల్గొనట్లు అయితె మీరు ఏమి చెయ్యాలి?
మీరు ఈ పరిశోధనలో పాల్గొనట్టు అయితే మీరు ఆస్పత్రి లో చేరినప్పుడు మీకు ఒక ప్రశ్న పత్రము ఇవ్వబడును. తరువాత కొన్ని ప్రశ్నలు అడగబడును. మీరు వాడుతున్న ఇతర మందులు అన్నీ మామూలుగా వాడుకో వచ్చు . ఆస్పత్రి నుండి వెళ్లిన తరువాత ఫోను ద్వారా ఒక నెల , మూడు నెలలు , ఆరు నెలలు విడిదిలో ఒక సంవత్సరం వరకు ఫోనులో మిమ్మలను ప్రశ్నలు అడుగుతారు .

మధ్యలో మీకు ఏ కష్టం వచ్చినా వైద్యుని సంప్రదింపవచ్చు

ఈ పరిశోధన నుంచి మధ్యలో బయటకి పోవచ్చునా?

ఈ పరిశోధన కేవలము మీ ఇష్టముతో జరుగుతుంది కాబట్టి ఎప్పుడైనా మీరు బయటికి పో వచ్చును.

ఈ పరిశోధన ద్వారా ఏమైనా హాని జరగవచ్చా?
మీకు ఏమైన హాని కలుగుతుందని అనుకోడంలేదు.

ఈ పరిశోధనలో పాల్గొనుటకు ఏమైనా సొమ్ము చెల్లించగలన ?
దీని కొరకు ప్రత్యేకముగ ఏమియు చెల్లించినక్కరలేదు

ఈ పరిశోధన తరువాత ఏమవుతుంది ?
ఈ పరిశోధన వల్ల మీకు లాభము ఉండవచ్చు,ను ఉండకపోవచ్చు,ను కానీ భవిష్యతులో ఇతర రోగులకు ఉపయోగ పడును.

మీ వ్యక్తి గత వివరములు రహస్యముగ ఉంచబడునా?

మీ వ్యక్తి గత వివరములు మరియు పేరు ఏ విధమైన ప్రచురణ లో కనిపించవు కానీ పరిశోధన చేయువారు మీ వివరములను తెలుసుకోవచ్చును. కానీ పరిశోధకులు మీ యొక్క వ్యాధి వివరములు చదవగలరు.
ఈ యొక్క పరిశోధములో 300 మంది పాల్గొంటున్నారు.

మీకు ఏమైనా ప్రశ్నలు ఉన్నట్లు అయితే ఈ కింద ఇవ్వబడిన వైద్యుని సంప్రదించ గలరు

కెవిన్ జాన్ జాన్
వైద్య శాస్త్ర విభాగము 2
క్రిస్టియన్ మెడికల్ కాలేజీ హాస్పిటల్
వెల్లూరు, తమిల్ నాడు
632004
ఫోన్ నెంబర్: 0416 2282031
మొబైల్ నెంబర్.-9843687998
ఈ-మెయిలు: kevinjohn619@gmail.com

11.4.4Hindi

क्रिस्चियन मेडिकल कॉलेज, वेल्लोर
मेडिसिन विभाग

तीव्र बिगड़ते हार्ट फेलियर के उपचारिक विशेषता, जोकिम कारक और दीर्घकालिक परिणाम।

सुचना पत्र।

अगर आप हिस्सा लेंगे तो होन्ग?

अगर आप इस अध्ययन का हिस्सा बनते है थो आप की स्वचिक जानकारी जमा की जाएगी। आप को एक सवाल पत्रक दिया जाएगा जिसमे आप से जोखिम के कारण पूछे जाएंगे।
आप की चिकित्सा पर कोई फर्क नहीं पड़ेगा।
अस्पताल से छुट्टी के बाद आप से फ़ोन द्वारा कुछ सवाल पूछे जयींग।
इस अध्यनन में कोई अतिरक्त प्रक्रिया या ब्लड टेस्ट नहीं किया जाईंगे।
अगर आप को किसी भी समय कोई समस्या होती है थो आप किसी भी डॉक्टर को सुचित कर सकते है।

क्या अध्ययन शुरू होने के बाढ़ आप अपना नाम वापस ले सकते है ?
आप की भाग्यदारी स्वचिक है। और आप किसी भी समय अपना नाम वापस ले सकते है।
ऐसा करने पर आप की चिकित्सा प्रभावित नहीं होगी।

क्या इस अध्ययन से कोई हानि हो सकती है ?
इस अध्ययन से आप को किसी तरह की हानि नहीं होगी।

क्या इस अध्ययन में भाग लेने केलिए कोई खर्च होगा?
इस अध्ययन में आप को कोई अतिरक्त खर्च नहीं होगा।
आप को अपनी चिकित्सा का खर्च साधारण प्रकार से खुद उठाना पड़ेगा।

अध्ययन की समपथी पर क्या होगा ?
आप को इस अध्ययन से शायद कोई फायदा हो या नहीं हो सकता है । लेकिन इस अध्ययन के परिणाम भविष्य में इस प्रकार की बीमारियों का इलाज करने में काम आएंगे।

क्या मेरी निजी जानकारी का खुलासा किया जायेगा?
इस अध्ययन के परिणाम केवल वैज्ञानिक पत्रिका में प्रकाशित किया जाईगे। लेकिन आप की निजी जानकारी का खुलासा नहीं किया जायेगा। लेकिन आप के स्वस्थ्य रिकॉर्ड इस अध्ययन जुड़े बाकी अधिकारियों द्वारा देखे जाएंगे।
इस अध्ययन में ३०० व्यक्ति धकील किये जाएंगे। आप से विनती है की आप के स्वस्थ के बारे मैं सम्पूर्ण जानकारी दे।

अगर आप के कोई थो इस डॉक्टर से पूछ सकते है
डॉ.केविन जॉन जॉन ,
मेडिसिन विभाग -2 ,
क्रिस्चियन मेडिकल कॉलेज हॉस्पिटल ,
वेल्लोर , तमिल नाडु ,
632004
टेलीफोन :0416 2282031
मोबाइल :9843687998
इ -मेल :kevinjohn619@gmail.com

11.5 Consent Form

11.5.1 English

Informed Consent form to participate in a research study

Study Title: : Clinical cHara cteristics, Risk factors and long term OutcoMEs in patients with Acute decompensated Heart Failure-CHROME-HF study

Study Number: _____

Subject's Name: _____

Date of Birth / Age: _____

(Subject)

(i) I confirm that I have read and understood the information sheet dated _____ for the above study and have had the opportunity to ask questions. [ ]

(ii) I understand that my participation in the study is voluntary and that I am free to withdraw at any time, without giving any reason, without my medical care or legal rights being affected. [ ]

(iii) I understand that the Ethics Committee and the regulatory authorities will not need my permission to look at my health records both in respect of the current study and any further research that may be conducted in relation to it, even if I withdraw from the trial. I agree to this access. However, I understand that my identity will not be revealed in any information released to third parties or published. [ ]

(iv) I agree not to restrict the use of any data or results that arise from this study provided such a use is only for scientific purpose(s). [ ]

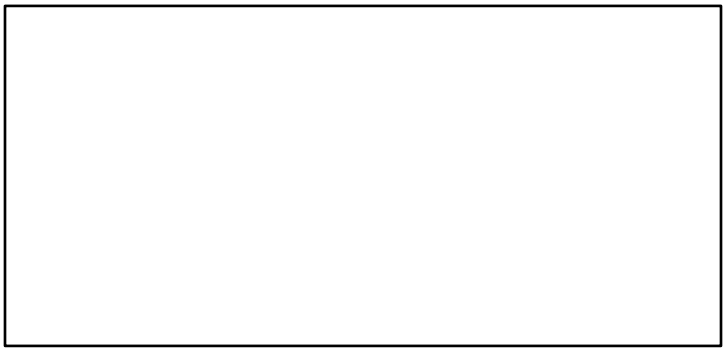
(v) I agree to take part in the above study. [ ]

Signature (or Thumb impression) of the Subject/Legally Acceptable

Date: _____/_____/_____

Signatory's Name: _____ Signature:

Or



Representative: _____

Date: _____/_____/_____

Signatory's Name: _____

Signature of the Investigator: _____

Date: _____/_____/_____

Study Investigator's Name: _____

Signature or thumb impression of the Witness: _____

Date: _____/_____/_____

Name & Address of the Witness

11.5.2Tamil

ஒப்புதல் படிவம்

ஆய்வினில் பங்குகேற்க முறையான சம்மதம் வேண்டி படிவம்

ஆய்வு: தலைப்பு: கடுமையான இதய ஈட்டுத்திறனிழந்த நோயாளிகளின் -மருத்துவ பண்புகள், ஆபத்துக் காரணிகள் மற்றும் நீண்ட கால விளைவுகளை காணும் ஆய்வு.

ஆராய்ச்சி எண்: _____

பொருளின் பெயர்: _____

பிறப்பு / வயது தேதி: _____

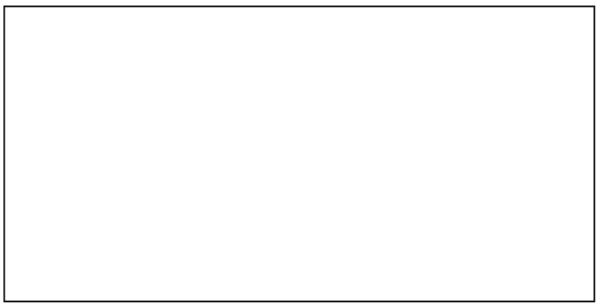
(தலைப்பு)

1. நான் கொடுத்திருக்கும் தகவல் தாளை படித்து புரிந்துகொண்டதுடன். எனக்கு எற்பட்ட சந்தேகங்களையும் இன்று _____ கேட்டு தெரிந்துகொண்டேன்.
2. இந்த ஆய்வில் நான் பங்குகெடுக்க முழு மனதோடு சம்மதிக்கிறேன். மேலும் எனக்கு இந்த ஆய்வில் ஒருவேளை விருப்பமின்மை ஏற்பட்டால், எவ்வித காரணம் சொல்லாமல் விலக்கொள்வேன். எனது மருத்துவ பராமரிப்புக்கும், சட்ட உரிமைக்கும் எவ்வித பாதிப்பும் எற்படாது என்பதை அறிவேன்.
3. இந்த ஆய்வின் சார்பாக வேலை செய்பவர்களுக்கும், நெறிமுறை குழு மற்றும் ஒழுங்குமுறை குழுவிற்கும், நான் இந்த ஆய்விலிருந்து விலகிக்கொண்டாள் கூட எனது மருத்துவ விவரங்களை காணவும் அதனை இந்த ஆய்வினில் மட்டுமல்லாது இதனை சேர்ந்த பின்வரும் ஆய்விற்கும் பயன்படுத்த முழு உரிமை உள்ளதென அறிவேன். எனினும் என்னை பற்றிய தகவல்களை இந்த ஆய்வில் சார்ந்தோர் அல்லாது வேறு எவரிடமும் சேராது என அறிவேன்.
4. இதில் கிடைக்கும் தரவுகளையும், முடிவுகளையும் இந்த ஆய்வுக்கு மட்டுமின்றி. ஒருவேளை அறிவியல் சார்ந்து வேறு ஆய்வுக்கும் தேவைப்பட்டால் பயன்படுத்த உரிமை உள்ளது என்பதை அறிவேன்.
5. நான் மேலே குறிப்பிட்டிருக்கும் இந்த ஆய்வில் பங்குகொள்ள சம்மதிக்கிறேன்.

கையொப்பம் (அல்லது பெருவிரல் ரேகை)

தேதி: __ / __ / __

கையொப்பமி டு ம் பெயர்: _____
கையொப்பம்:

அல்லது 

பிரதிநிதி: _____

தேதி: __ / __ / __

கையொப்பமி டு ம் பெயர்: _____

ஆராய்ச்சியாளராக கையொப்பம்: _____

தேதி: __ / __ / __

ஆய்வு ஆராய்ச்சியாளராக பெயர்: _____

சாட்சி கையொப்பம் அல்லது பெருவிரல் ரேகை: _____

தேதி: __ / __ / ___

பெயர் & சாட்சி முகவரி:

11.5.3Telugu

అంగీకార పత్రము

అధ్యయనం టైటిల్ : తీవ్రమైన గుండె జబ్బుగల రోగుల క్లినికల్ లక్షణాలు, ప్రమాద కారకాలు మరియు దీర్ఘ కాలపు ఫలితాలు-ఒక అధ్యయనము
అధ్యయనం సంఖ్య: _____

వ్యక్తియొక్క పేరు: _____

పుట్టిన తేది / వయసు: _____

(విషయం)

(i) నేను ఈ యొక్క సమాచారమును చదివి అర్థం చేసుకొని మరలా ప్రశ్నలు అడుగుటకు అవకాశము ఇవ్వబడినదని అంగీకరించు చున్నాను

(ii) నేను నా ఇష్ట పూర్వకముగా ఈ యొక్క అధ్యయములో పాల్గొని ఏ సమయములో నైనను ఏ కారణము లేకుండా ఏ విధమైన వైద్య సహాయము మరియు న్యాయ పరమైన హక్కులు కోల్పోకుండా బయటకి రాగలనని అర్థం చేసుకున్నాను

(iii) ఎథిక్స్ కమిటీ వారు నా యొక్క అనుమతి లేకుండా నా యొక్క ఆరోగ్య పత్రములు ఏ సమయములో నైనను పరికింప వచ్చునని అంగీకరించు చున్నాను కానీ నా యొక్క వ్యక్తిత్వమును ఇతరులకు తెలియచేయకూడదు

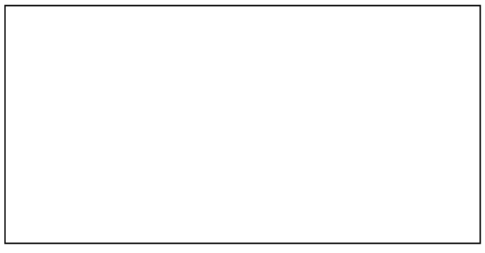
(iv) ఈ యొక్క పరిశోదన ఫలితములను కేవలము విజ్ఞానము కొరకే వాడవలనని అంగీకరించుచున్నాను

(v) నేను ఈ యొక్క పరిశోధన లో పాల్గొనుటకు అంగీకరించుచున్నాను

సంతకము
తేది: _____/_____/_____

పేరు: _____ సంతకము:

లేదా



ప్రతినిధి: _____

తేది: _____/_____/_____

పేరు: _____

పరిశోధకుని పేరు: _____

తేది: _____/_____/_____

పరిశోధకుని పేరు: _____

సాక్షి సంతకము : _____

తేది: _____/_____/_____

సాక్షి పేరు మరియు చిరునామ

11.5.4Hindi

सहमति पत्र

अध्ययन शीर्षक: तीव्र बिगड़ते हार्ट फेलियर के उपचारिक विशेषता, जोकिम कारण और दीर्घकालीक परिणाम।

अध्ययन क्रमांक: _____

रोगी की नाम: _____

जन्म की तिथि / आयु: _____

(विषय)

(i) मैं इस बात की पुष्टि करता हूँ की मैंने उपरोक्त अध्ययन के लिए सूचना पत्रक दिनांकित _____ पढ़ा है, समझा है और सवाल पूछने का अवसर मिला है। [ ]

(ii) मैं समझा हूं की अध्ययन मैं मेरी भागीदारी स्वाछिक है और किसी भी समय अपना नाम बिना कोई कारण बताए, बिना अपने चिकित्सा देखबाल या कानूनी अधिकार प्रभवित किया ,वापस लेने केलिए स्वतंत्र हूँ। [ ]

(iii) अध्ययन के आचार समिति और नियमिक अधिकारियों को मेरे स्वास्थ रिकॉर्ड देने केलिए मेरी अनुमति की जरूरत नहीं होगी , हालाँकि , मैं यह समझता हूँ कि मेरी पहचान किसी भी तीसरे पक्ष को जारी या प्रकाशित नहीं की जाएगी, इसके लिए मैं सहमत हूँ। [ ]

(iv) मैं इस प्रयोग के परिणाम को किसी भी वैज्ञानिक उद्देश्य केलिए प्रदान करने में कोई रोक नहीं लगाऊंगा। [ ]

(v) मैं ऊपर लिखित अध्ययन में भाग लेने के लिए सहमत हूँ। [ ]

रोगी के हस्ताक्षर (या अंगूठे का निशान) / या क़ानूनी स्वीकृत प्रतिनिधि

दिनांक : _____/_____/_____

हस्ताक्षर करने वाले का नाम: _____

हस्ताक्षर:

या 

प्रतिनिधि: _____

दिनांक : _____/_____/_____

हस्ताक्षर करने वाले का नाम: _____

अध्ययन जांचकर्ता के हस्ताक्षर: _____

दिनांक : _____/_____/_____

अध्ययन जांचकर्ता का नाम: _____

गवाह के हस्ताक्षर।: _____

दिनांक : _____/_____/_____

गवाह का नाम और पता।·

11.6 Strobe Checklist

STROBE Statement—Checklist of items that should be included in reports of ***cohort studies***

	Item No	Recommendation
Title and abstract	1	(*a*) Indicate the study's design with a commonly used term in the title or the abstract
		(*b*) Provide in the abstract an informative and balanced summary of what was done and what was found
Introduction		
Background/rationale	2	Explain the scientific background and rationale for the investigation being reported
Objectives	3	State specific objectives, including any prespecified hypotheses
Methods		
Study design	4	Present key elements of study design early in the paper
Setting	5	Describe the setting, locations, and relevant dates, including periods of recruitment, exposure, follow-up, and data collection
Participants	6	(*a*) Give the eligibility criteria, and the sources and methods of selection of participants. Describe methods of follow-up
		(*b*) For matched studies, give matching criteria and number of exposed and unexposed
Variables	7	Clearly define all outcomes, exposures, predictors, potential confounders, and effect modifiers. Give diagnostic criteria, if applicable
Data sources/ measurement	8*	For each variable of interest, give sources of data and details of methods of assessment (measurement). Describe comparability of assessment methods if there is more than one group
Bias	9	Describe any efforts to address potential sources of bias
Study size	10	Explain how the study size was arrived at
Quantitative variables	11	Explain how quantitative variables were handled in the analyses. If applicable, describe which groupings were chosen and why
Statistical methods	12	(*a*) Describe all statistical methods, including those used to control for confounding
		(*b*) Describe any methods used to examine subgroups and interactions
		(*c*) Explain how missing data were addressed
		(*d*) If applicable, explain how loss to follow-up was addressed
		(*e*) Describe any sensitivity analyses
Results		
Participants	13*	(a) Report numbers of individuals at each stage of study—eg numbers potentially eligible, examined for eligibility, confirmed eligible, included in the study, completing follow-up, and analysed
		(b) Give reasons for non-participation at each stage
		(c) Consider use of a flow diagram
Descriptive data	14*	(a) Give characteristics of study participants (eg demographic, clinical, social) and information on exposures and potential confounders
		(b) Indicate number of participants with missing data for each variable of interest
		(c) Summarise follow-up time (eg, average and total amount)
Outcome data	15*	Report numbers of outcome events or summary measures over time
Main results	16	(*a*) Give unadjusted estimates and, if applicable, confounder-adjusted estimates and their precision (eg, 95% confidence interval). Make clear which confounders were adjusted for and why they were included
		(*b*) Report category boundaries when continuous variables were categorized
		(*c*) If relevant, consider translating estimates of relative risk into absolute risk for a meaningful time period

Other analyses	17	Report other analyses done—eg analyses of subgroups and interactions, and sensitivity analyses
Discussion		
Key results	18	Summarise key results with reference to study objectives
Limitations	19	Discuss limitations of the study, taking into account sources of potential bias or imprecision. Discuss both direction and magnitude of any potential bias
Interpretation	20	Give a cautious overall interpretation of results considering objectives, limitations, multiplicity of analyses, results from similar studies, and other relevant evidence
Generalisability	21	Discuss the generalisability (external validity) of the study results
Other information		
Funding	22	Give the source of funding and the role of the funders for the present study and, if applicable, for the original study on which the present article is based

*Give information separately for exposed and unexposed groups.

Note: An Explanation and Elaboration article discusses each checklist item and gives methodological background and published examples of transparent reporting. The STROBE checklist is best used in conjunction with this article (freely available on the Web sites of PLoS Medicine at http://www.plosmedicine.org/, Annals of Internal Medicine at http://www.annals.org/, and Epidemiology at http://www.epidem.com/). Information on the STROBE Initiative is available at http://www.strobe-statement.org.

11.7 Boston Criteria for diagnosis of heart failure

History:
○ Rest dyspnea (4pts) ○ Orthopnea (4pts) ○ Paroxysmal nocturnal dyspnea (3 pts) ○ Dyspnea on walking on level (2pts) ○ Dyspnea on climbing (1pt)
Physical Examination:
○ Heart rate abnormality (1–2pts) ○ Jugular venous pressure elevation (1–2 pts) ○ Lung crackles (1–2pts) ○ Wheezing (3 pts) ○ Third heart sound (3 pts)
Chest Radiograph:
○ Alveolar pulmonary edema (4 pts) ○ Interstitial pulmonary edema (3 pts) ○ Bilateral pleural effusions (3 pts) ○ Cardiothoracic ratio ≥0.50 (3 pts) ○ Upper-zone flow redistribution (2 pts)
Definite HEART FAILURE 8–12 pts, possible 5–7pts, unlikely 4 pts or less

11.8 International Physical Activity Questionnaire

INTERNATIONAL PHYSICAL ACTIVITY QUESTIONNAIRE (August 2002)

SHORT LAST 7 DAYS SELF-ADMINISTERED FORMAT

FOR USE WITH YOUNG AND MIDDLE-AGED ADULTS (15-69 years)

The International Physical Activity Questionnaires (IPAQ) comprises a set of 4 questionnaires. Long (5 activity domains asked independently) and short (4 generic items) versions for use by either telephone or self-administered methods are available. The purpose of the questionnaires is to provide common instruments that can be used to obtain internationally comparable data on health–related physical activity.

Background on IPAQ

The development of an international measure for physical activity commenced in Geneva in 1998 and was followed by extensive reliability and validity testing undertaken across 12 countries (14 sites) during 2000. The final results suggest that these measures have acceptable measurement properties for use in many settings and in different languages, and are suitable for national population-based prevalence studies of participation in physical activity.

Using IPAQ

Use of the IPAQ instruments for monitoring and research purposes is encouraged. It is recommended that no changes be made to the order or wording of the questions as this will affect the psychometric properties of the instruments.

Translation from English and Cultural Adaptation

Translation from English is supported to facilitate worldwide use of IPAQ. Information on the availability of IPAQ in different languages can be obtained at www.ipaq.ki.se. If a new translation is undertaken we highly recommend using the prescribed back translation methods available on the IPAQ website. If possible please consider making your translated version of IPAQ available to others by contributing it to the IPAQ website. Further details on translation and cultural adaptation can be downloaded from the website.

Further Developments of IPAQ

International collaboration on IPAQ is on-going and an ***International Physical Activity Prevalence Study*** is in progress. For further information see the IPAQ website.

More Information

More detailed information on the IPAQ process and the research methods used in the development of IPAQ instruments is available at www.ipaq.ki.se and Booth, M.L. (2000). *Assessment of Physical Activity: An International Perspective*. Research Quarterly for Exercise and Sport, 71 (2): s114-20. Other scientific publications and presentations on the use of IPAQ are summarized on the website.

INTERNATIONAL PHYSICAL ACTIVITY QUESTIONNAIRE

We are interested in finding out about the kinds of physical activities that people do as part of their everyday lives. The questions will ask you about the time you spent being physically active in the **last 7 days**. Please answer each question even if you do not consider yourself to be an active person. Please think about the activities you do at work, as part of your house and yard work, to get from place to place, and in your spare time for recreation, exercise or sport.

Think about all the **vigorous** activities that you did in the **last 7 days**. **Vigorous** physical activities refer to activities that take hard physical effort and make you breathe much harder than normal. Think *only* about those physical activities that you did for at least 10 minutes at a time.

1. During the **last 7 days**, on how many days did you do **vigorous** physical activities like heavy lifting, digging, aerobics, or fast bicycling?

   _____ **days per week**

   ☐ No vigorous physical activities → ***Skip to question 3***

2. How much time did you usually spend doing **vigorous** physical activities on one of those days?

   _____ **hours per day**

   _____ **minutes per day**

   ☐ Don't know/Not sure

Think about all the **moderate** activities that you did in the **last 7 days**. **Moderate** activities refer to activities that take moderate physical effort and make you breathe somewhat harder than normal. Think only about those physical activities that you did for at least 10 minutes at a time.

3. During the **last 7 days**, on how many days did you do **moderate** physical activities like carrying light loads, bicycling at a regular pace, or doubles tennis? Do not include walking.

   _____ **days per week**

   ☐ No moderate physical activities → ***Skip to question 5***

SHORT LAST 7 DAYS SELF-ADMINISTERED version of the IPAQ. Revised August 2002.

4. How much time did you usually spend doing **moderate** physical activities on one of those days?

_____ **hours per day**

_____ **minutes per day**

☐ Don't know/Not sure

Think about the time you spent **walking** in the **last 7 days**. This includes at work and at home, walking to travel from place to place, and any other walking that you have done solely for recreation, sport, exercise, or leisure.

5. During the **last 7 days**, on how many days did you **walk** for at least 10 minutes at a time?

_____ **days per week**

☐ No walking → ***Skip to question 7***

6. How much time did you usually spend **walking** on one of those days?

_____ **hours per day**

_____ **minutes per day**

☐ Don't know/Not sure

The last question is about the time you spent **sitting** on weekdays during the **last 7 days**. Include time spent at work, at home, while doing course work and during leisure time. This may include time spent sitting at a desk, visiting friends, reading, or sitting or lying down to watch television.

7. During the **last 7 days**, how much time did you spend **sitting** on a **week day**?

_____ **hours per day**

_____ **minutes per day**

☐ Don't know/Not sure

This is the end of the questionnaire, thank you for participating.

SHORT LAST 7 DAYS SELF-ADMINISTERED version of the IPAQ. Revised August 2002.

Scoring:
Categorical Score:
Categorical Score- three levels of physical activity are proposed

1. Inactive ☐
• No activity is reported OR
• Some activity is reported but not enough to meet Categories 2 or 3.

2. Minimally Active ☐
Any one of the following 3 criteria
• 3 or more days of vigorous activity of at least 20 minutes per day OR
• 5 or more days of moderate-intensity activity or walking of at least 30 minutes per day OR
• 5 or more days of any combination of walking, moderate-intensity or vigorous intensity activities achieving a minimum of at least 600 MET-min/week.

3. HEPA (health enhancing physical activie)**active** ☐
Any one of the following 2 criteria
• Vigorous-intensity activity on at least 3 days and accumulating at least 1500 METminutes/week
OR
• 7 or more days of any combination of walking, moderate-intensity or vigorous intensity activities achieving a minimum of at least 3000 MET-minutes/week

---

Continuous Score:
MET values and Formula for computation of Met-minutes

Walking MET-minutes/week = 3.3 * walking minutes * walking days
=3.3 x _____x ___ =_____ Walking MET-minutes/week

Moderate MET-minutes/week = 4.0 * moderate-intensity activity minutes * moderate days
=4x _____ x ___ =_____ Moderate MET-minutes/week

Vigorous MET-minutes/week = 8.0 * vigorous-intensity activity minutes * vigorous-intensity days
=8x _____ x ___ =_____ Vigorous MET-minutes/week

A combined total physical activity MET-min/week can be computed as the sum of Walking + Moderate + Vigorous MET-min/week scores.
_____ + _____ + _____= _____ MET-minutes/week

11.9 Minnesota Living with Heart Failure Questionnaire

MINNESOTA LIVING WITH HEART FAILURE® QUESTIONNAIRE

The following questions ask how much your heart failure (heart condition) affected your life during the past month (4 weeks). After each question, circle the 0, 1, 2, 3, 4 or 5 to show how much your life was affected. If a question does not apply to you, circle the 0 after that question.

Did your heart failure prevent you from living as you wanted during the past month (4 weeks) by -	**No**	**Very Little**				**Very Much**
1. causing swelling in your ankles or legs?	0	1	2	3	4	5
2. making you sit or lie down to rest during the day?	0	1	2	3	4	5
3. making your walking about or climbing stairs difficult?	0	1	2	3	4	5
4. making your working around the house or yard difficult?	0	1	2	3	4	5
5. making your going places away from home difficult?	0	1	2	3	4	5
6. making your sleeping well at night difficult?	0	1	2	3	4	5
7. making your relating to or doing things with your friends or family difficult?	0	1	2	3	4	5
8. making your working to earn a living difficult?	0	1	2	3	4	5
9. making your recreational pastimes, sports or hobbies difficult?	0	1	2	3	4	5
10. making your sexual activities difficult?	0	1	2	3	4	5
11. making you eat less of the foods you like?	0	1	2	3	4	5
12. making you short of breath?	0	1	2	3	4	5
13. making you tired, fatigued, or low on energy?	0	1	2	3	4	5
14. making you stay in a hospital?	0	1	2	3	4	5
15. costing you money for medical care?	0	1	2	3	4	5
16. giving you side effects from treatments?	0	1	2	3	4	5
17. making you feel you are a burden to your family or friends?	0	1	2	3	4	5
18. making you feel a loss of self-control in your life?	0	1	2	3	4	5
19. making you worry?	0	1	2	3	4	5
20. making it difficult for you to concentrate or remember things?	0	1	2	3	4	5
21. making you feel depressed?	0	1	2	3	4	5

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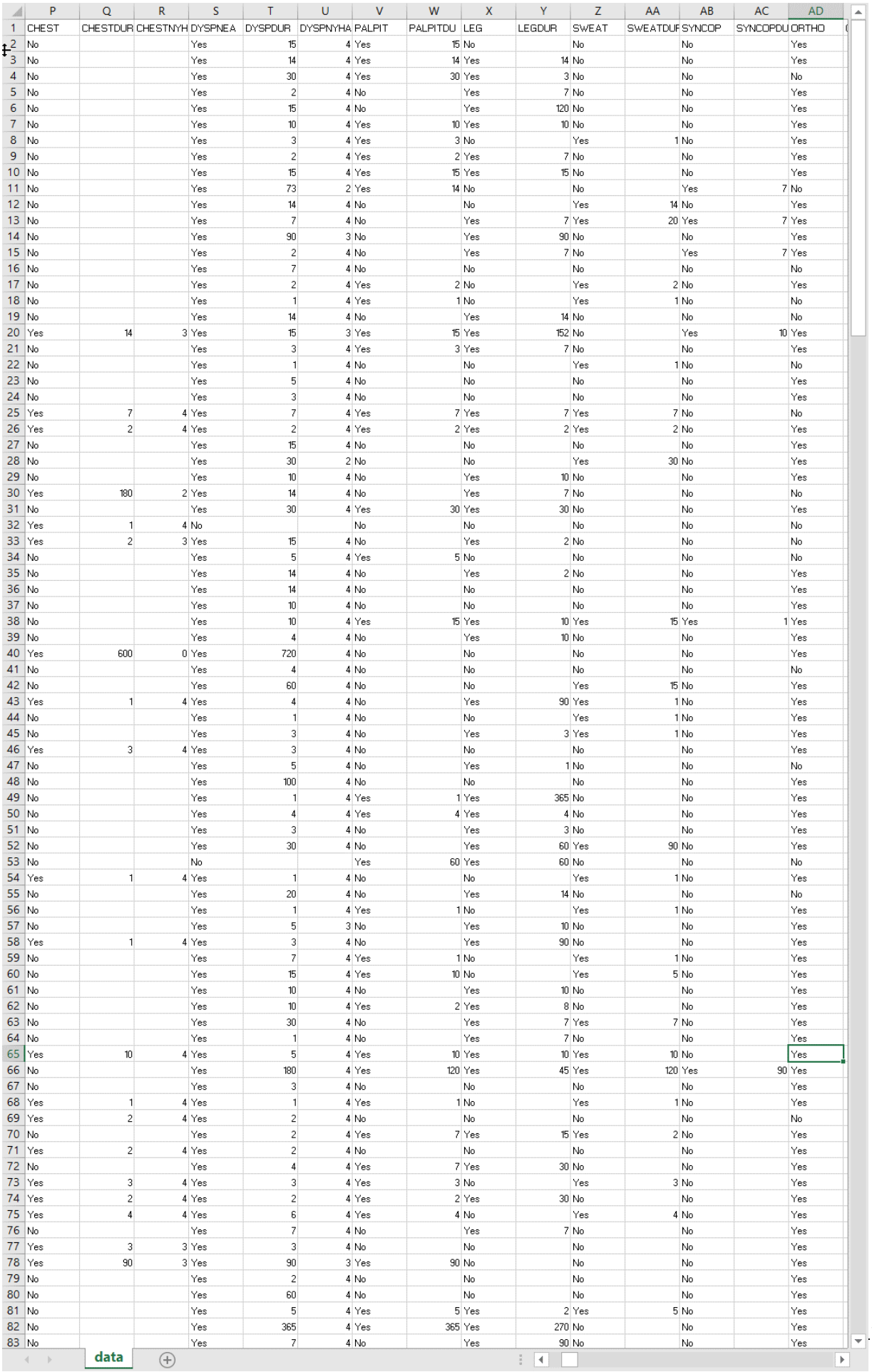
11/10/04

11.10 Thesis data

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
1	SLNO	PRORETRC	AGE	SEX	PREVHEAR	DIEHOSP	HOSPSTAY	ICUSTAY	WARDSTAY	MARITAL	EDUCAT	OCCUPAT	INCOME	TOTALSCO	KUPPUCLS
2	1	Prospective	60	Female	No	No	15	0	15	Married	Illiterate	Unskilled	Rs 2181-Rs 6	5	Lower
3	2	Prospective	46	Male	No	No	13	0	13	Married	Graduate or	Clerical Shc	Rs 10796-Rs	15	Lower Middl
4	3	Prospective	56	Male	Yes	No	17	0	17	Married	High school	Clerical Shc	Rs 2181-Rs 6	11	Lower Middl
5	5	Prospective	75	Male	Yes	No	5	0	5	Married	Middle scho	Semi-profes	Rs 10796-Rs	13	Lower Middl
6	6	Prospective	45	Male	No	No	4	0	4	Married	Middle scho	Semi-skilled	Rs 2180 and	7	Upper Lower
7	7	Prospective	73	Male	No	No	15	0	15	Married	Middle scho	Semi-skilled	Rs 10796-Rs	10	Upper Lower
8	8	Prospective	74	Male	No	Yes	1	0	1	Married	Intermediate	Profession	Rs 21592 - R	25	Upper Middl
9	9	Prospective	53	Male	Yes	No	5	0	5	Married	High school	Semi-skilled	Rs 2181-Rs 6	9	Upper Lower
10	10	Prospective	62	Female	No	Yes	18	0	18	Married	Middle scho	Skilled-work	Rs 10796-Rs	11	Lower Middl
11	11	Prospective	52	Female	No	No	17	0	17	Married	Middle scho	Unskilled	Rs 6478-Rs	8	Upper Lower
12	12	Prospective	66	Female	No	No	4	0	4	Married	Illiterate	Unskilled	Rs 2180 and	4	Lower
13	13	Prospective	73	Female	No	No	9	0	9	Married	Intermediate	Unskilled	Rs 2181-Rs 6	9	Upper Lower
14	14	Prospective	31	Female	No	No	14	0	14	Married	Primary sch	Unskilled	Rs 2181-Rs 6	6	Upper Lower
15	16	Prospective	85	Female	No	No	19	0	19	Married	Primary sch	Semi-skilled	Rs 6478-Rs	8	Upper Lower
16	17	Prospective	59	Male	No	No	10	0	10	Married	High school	Semi-profes	Rs 6478-Rs	13	Lower Middl
17	18	Prospective	31	Female	No	No	9	4	5	Married	Illiterate	Unskilled	Rs 2180 and	4	Lower
18	19	Prospective	85	Female	No	No	4	0	4	Married	High school	Clerical Shc	Rs 10796-Rs	13	Lower Middl
19	20	Prospective	75	Female	No	No	9	0	9	Married	Middle scho	Unskilled	Rs 2180 and	6	Upper Lower
20	21	Prospective	57	Female	Yes	No	11	5	6	Married	Graduate or	Semi-profes	Rs 10796-Rs	16	Upper Middl
21	22	Prospective	58	Male	No	No	5	0	5	Married	High school	Semi-skilled	Rs 2181-Rs 6	9	Upper Lower
22	23	Prospective	71	Female	Yes	No	6	0	6	Married	High school	Unemployec	Rs 2181-Rs 6	7	Upper Lower
23	24	Prospective	52	Male	No	No	13	0	13	Married	Middle scho	Skilled-work	Rs 21592 - R	17	Upper Middl
24	25	Prospective	66	Female	Yes	No	17	0	17	Married	Illiterate	Skilled-work	Rs 16194-Rs	11	Lower Middl
25	27	Prospective	64	Female	Yes	No	7	4	3	Married	Graduate or	Semi-profes	Rs 6478-Rs	15	Lower Middl
26	28	Prospective	51	Female	No	No	14	0	14	Married	Middle scho	Unemployec	Rs 2180 and	5	
27	29	Prospective	57	Male	No	No	8	0	8	Married	Intermediate	Skilled-work	Rs 21592 - R	19	Upper Middl
28	30	Prospective	61	Male	No	Yes	10	0	10	Married	Graduate or	Semi-skilled	Rs 10796-Rs	13	Lower Middl
29	31	Prospective	72	Female	No	No	16	0	16	Married	Middle scho	Semi-skilled	Rs 6478-Rs	9	Upper Lower
30	32	Prospective	60	Female	No	No	7	0	7	Married	Primary sch	Unskilled	Rs 6478-Rs	7	Upper Lower
31	33	Prospective	35	Female	No	Yes	4	0	4	Married	Middle scho	Semi-skilled	Rs 2180 and	7	Upper Lower
32	36	Prospective	88	Male	No	No	8	0	8	Married	High school	Semi-skilled	Rs 2181-Rs 6	9	Upper Lower
33	37	Prospective	41	Male	No	No	12	0	12	Married	Intermediate	Semi-skilled	Rs 10796-Rs	12	Lower Middl
34	38	Prospective	63	Female	No	No	8	0	8	Married	High school	Semi-skilled	Rs 2181-Rs 6	9	Upper Lower
35	39	Prospective	71	Female	No	No	5	0	5	Married	Middle scho	Semi-skilled	Rs 2181-Rs 6	8	Upper Lower
36	40	Prospective	61	Female	No	No	7	0	7	Married	Primary sch	Unskilled	Rs 2181-Rs 6	6	Upper Lower
37	41	Prospective	55	Male	No	No	5	0	5	Married	Middle scho	Semi-skilled	Rs 2181-Rs 6	8	Upper Lower
38	42	Prospective	60	Female	No	No	7	0	7	Married	Illiterate	Semi-skilled	Rs 6478-Rs	7	Upper Lower
39	43	Prospective	64	Male	No	No	4	0	4	Married	High school	Semi-skilled	Rs 10796-Rs	11	Lower Middl
40	44	Prospective	55	Female	Yes	Yes	1	0	1	Married	High school	Clerical Shc	Rs 10796-Rs	13	Lower Middl
41	45	Prospective	79	Male	No	No	12	7	5	Married	Graduate or	Profession	Rs 6478-Rs	19	Upper Middl
42	46	Prospective	54	Male	Yes	No	23	0	23	Married	Intermediate	Semi-profes	Rs 2181-Rs 6	13	Lower Middl
43	47	Prospective	84	Male	No	No	12	0	12	Married	Graduate or	Profession		3	Lower
44	48	Prospective	45	Female	No	No	4	0	4	Married	Illiterate	Unskilled	Rs 2181-Rs 6	5	Upper Lower
45	49	Prospective	55	Male	No	No	12	0	12	Married	High school	Semi-skilled	Rs 2181-Rs 6	9	Upper Lower
46	50	Prospective	79	Female	Yes	No	7	0	7	Married	Graduate or	Profession	Rs 21592 - R	26	Upper
47	51	Prospective	80	Female	No	No	11	0	11	Married	Primary sch	Unemployec	Rs 2180 and	4	Lower
48	52	Prospective	64	Male	No	Yes	10	6	4	Married	Middle scho	Skilled-work	Rs 10796-Rs	11	Lower Middl
49	55	Prospective	70	Male	Yes	No	13	7	6	Married	Middle scho	Semi-skilled	Rs 6478-Rs	9	Upper Lower
50	56	Prospective	65	Female	No	No	5	0	5	Married	Illiterate	Unemployec	Rs 2180 and	3	Lower
51	57	Prospective	36	Male	No	No	7	0	7	Married	Graduate or	Profession	Rs 6478-Rs	19	Upper Middl
52	58	Prospective	43	Male	Yes	No	6	0	6	Married	High school	Semi-skilled	Rs 6478-Rs	10	Upper Lower
53	59	Prospective	47	Female	No	No	9	0	9	Married	Illiterate	Semi-skilled	Rs 6478-Rs	7	Upper Lower
54	60	Prospective	80	Female	No	Yes	4	0	4	Married	Illiterate	Semi-skilled	Rs 10796-Rs	8	Upper Lower
55	61	Prospective	60	Female	No	No	18	4	14	Married	Primary sch	Unemployec	Rs 2180 and	4	Lower
56	62	Prospective	65	Female	No	No	16	12	4	Married	Illiterate	Unemployec	Rs 2180 and	3	Lower
57	63	Prospective	47	Female	Yes	No	7	3	4	Married	High school	Unemployec	Rs 2180 and	6	Upper Lower
58	64	Prospective	69	Male	Yes	Yes	17	0	17	Married	High school	Semi-skilled	Rs 10796-Rs	11	Lower Middl
59	65	Prospective	62	Male	No	No	7	0	7	Married	Primary sch	Semi-skilled	Rs 2181-Rs 6	7	Upper Lower
60	66	Prospective	30	Female	No	No	11	4	7	Married	Middle scho	Unemployec	Rs 2181-Rs 6	6	Upper Lower
61	67	Prospective	40	Female	No	No	4	0	4	Married	Primary sch	Unemployec	Rs 2181-Rs 6	5	
62	68	Prospective	40	Male	No	Yes	12	8	4	Married	Primary sch	Semi-skilled	Rs 6478-Rs	8	Upper Lower
63	69	Prospective	58	Male	Yes	Yes	10	0	10	Married	Middle scho	Unskilled	Rs 2181-Rs 6	7	Upper Lower
64	70	Prospective	65	Male	Yes	Yes	11	8	3	Married	Primary sch	Semi-skilled	Rs 6478-Rs	8	Upper Lower
65	71	Prospective	65	Female	No	No	12	0	12	Married	Middle scho	Semi-skilled	Rs 2180 and	7	Upper Lower
66	72	Prospective	35	Male	No	No	17	0	17	Married	Graduate or	Semi-skilled	Rs 10796-Rs	13	Lower Middl
67	73	Prospective	63	Male	No	No	27	0	27	Married	Middle scho	Unskilled	Rs 6478-Rs	8	Upper Lower
68	74	Prospective	71	Female	No	No	6	0	6	Married	High school	Skilled-work	Rs 6478-Rs	11	Lower Middl
69	75	Prospective	52	Male	No	No	14	1	13	Married	High school	Skilled-work	Rs 6478-Rs	11	Lower Middl
70	76	Prospective	61	Female	Yes	No	21	8	13	Married	Middle scho	Semi-skilled	Rs 10796-Rs	10	Upper Lower
71	77	Prospective	51	Male	No	No	2	0	2	Married	Intermediate	Skilled-work	Rs 6478-Rs	12	Lower Middl
72	78	Prospective	60	Male	No	No	7	0	7	Married	High school	Skilled-work	Rs 6478-Rs	11	Lower Middl
73	80	Prospective	83	Male	No	No	7	0	7	Married	Intermediate	Skilled-work	Rs 16194-Rs	15	Lower Middl
74	82	Prospective	53	Male	Yes	Yes	1	0	1	Married	High school	Unskilled	Rs 10796-Rs	10	Upper Lower
75	83	Prospective	47	Male	No	No	9	0	9	Married	Middle scho	Semi-skilled	Rs 10796-Rs	10	Upper Lower
76	84	Prospective	29	Female	No	No	10	3	7	Married	Intermediate	Unskilled	Rs 6478-Rs	10	Upper Lower
77	85	Prospective	49	Female	Yes	No	12	0	12	Married	Middle scho	Skilled-work	Rs 10796-Rs	11	Lower Middl
78	86	Prospective	41	Male	No	No	12	0	12	Married	Primary sch	Semi-skilled	Rs 6478-Rs	8	Upper Lower
79	87	Prospective	42	Male	Yes	Yes	1	0	1	Married	High school	Skilled-work	Rs 10796-Rs	12	Lower Middl
80	88	Prospective	65	Male	No	No	6	0	6	Married	High school	Semi-skilled	Rs 10796-Rs	11	Lower Middl
81	89	Prospective	74	Female	No	No	23	0	23	Married	Primary sch	Unskilled	Rs 6478-Rs	7	Upper Lower
82	90	Prospective	50	Female	Yes	No	6	0	6	Married	Middle scho	Unemployec	Rs 2180 and	5	
83	91	Prospective	36	Female	No	No	19	0	19	Married	High school	Semi-profes	Rs 21592 - R	20	Upper Middl

data



	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD
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2	No			Yes	15	4	Yes	15	No		No		No		Yes
3	No			Yes	14	4	Yes	14	Yes	14	No		No		Yes
4	No			Yes	30	4	Yes	30	Yes	3	No		No		No
5	No			Yes	2	4	No		Yes	7	No		No		Yes
6	No			Yes	15	4	No		Yes	120	No		No		Yes
7	No			Yes	10	4	Yes	10	Yes	10	No		No		Yes
8	No			Yes	3	4	Yes	3	No		Yes	1	No		Yes
9	No			Yes	2	4	Yes	2	Yes	7	No		No		Yes
10	No			Yes	15	4	Yes	15	Yes	15	No		No		Yes
11	No			Yes	73	2	Yes	14	No		No		Yes	7	No
12	No			Yes	14	4	No		No		Yes	14	No		Yes
13	No			Yes	7	4	No		Yes	7	Yes	20	Yes	7	Yes
14	No			Yes	90	3	No		Yes	90	No		No		Yes
15	No			Yes	2	4	No		Yes	7	No		Yes	7	Yes
16	No			Yes	7	4	No		No		No		No		No
17	No			Yes	2	4	Yes	2	No		Yes	2	No		Yes
18	No			Yes	1	4	Yes	1	No		Yes	1	No		No
19	No			Yes	14	4	No		Yes	14	No		No		No
20	Yes	14	3	Yes	15	3	Yes	15	Yes	152	No		Yes	10	Yes
21	No			Yes	3	4	Yes	3	Yes	7	No		No		Yes
22	No			Yes	1	4	No		No		Yes	1	No		No
23	No			Yes	5	4	No		No		No		No		Yes
24	No			Yes	3	4	No		No		No		No		Yes
25	Yes	7	4	Yes	7	4	Yes	7	Yes	7	Yes	7	No		No
26	Yes	2	4	Yes	2	4	Yes	2	Yes	2	Yes	2	No		Yes
27	No			Yes	15	4	No		No		No		No		Yes
28	No			Yes	30	2	No		No		Yes	30	No		Yes
29	No			Yes	10	4	No		Yes	10	No		No		Yes
30	Yes	180	2	Yes	14	4	No		Yes	7	No		No		No
31	No			Yes	30	4	Yes	30	Yes	30	No		No		Yes
32	Yes	1	4	No			No		No		No		No		No
33	Yes	2	3	Yes	15	4	No		Yes	2	No		No		No
34	No			Yes	5	4	Yes	5	No		No		No		No
35	No			Yes	14	4	No		Yes	2	No		No		Yes
36	No			Yes	14	4	No		No		No		No		Yes
37	No			Yes	10	4	No		No		No		No		Yes
38	No			Yes	10	4	Yes	15	Yes	10	Yes	15	Yes	1	Yes
39	No			Yes	4	4	No		Yes	10	No		No		Yes
40	Yes	600	0	Yes	720	4	No		No		No		No		Yes
41	No			Yes	4	4	No		No		No		No		No
42	No			Yes	60	4	No		No		Yes	15	No		Yes
43	Yes	1	4	Yes	4	4	No		Yes	90	Yes	1	No		Yes
44	No			Yes	1	4	No		No		Yes	1	No		Yes
45	No			Yes	3	4	No		Yes	3	Yes	1	No		Yes
46	Yes	3	4	Yes	3	4	No		No		No		No		Yes
47	No			Yes	5	4	No		Yes	1	No		No		No
48	No			Yes	100	4	No		No		No		No		Yes
49	No			Yes	1	4	Yes	1	Yes	365	No		No		Yes
50	No			Yes	4	4	Yes	4	Yes	4	No		No		Yes
51	No			Yes	3	4	No		Yes	3	No		No		Yes
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53	No			No			Yes	60	Yes	60	No		No		No
54	Yes	1	4	Yes	1	4	No		No		Yes	1	No		Yes
55	No			Yes	20	4	No		Yes	14	No		No		No
56	No			Yes	1	4	Yes	1	No		Yes	1	No		Yes
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58	Yes	1	4	Yes	3	4	No		Yes	90	No		No		Yes
59	No			Yes	7	4	Yes	1	No		Yes	1	No		Yes
60	No			Yes	15	4	Yes	10	No		Yes	5	No		Yes
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65	Yes	10	4	Yes	5	4	Yes	10	Yes	10	Yes	10	No		Yes
66	No			Yes	180	4	Yes	120	Yes	45	Yes	120	Yes	90	Yes
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68	Yes	1	4	Yes	1	4	Yes	1	No		Yes	1	No		Yes
69	Yes	2	4	Yes	2	4	No		No		No		No		No
70	No			Yes	2	4	Yes	7	Yes	15	Yes	2	No		Yes
71	Yes	2	4	Yes	2	4	No		No		No		No		Yes
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73	Yes	3	4	Yes	3	4	Yes	3	No		Yes	3	No		Yes
74	Yes	2	4	Yes	2	4	Yes	2	Yes	30	No		No		Yes
75	Yes	4	4	Yes	6	4	Yes	4	No		Yes	4	No		Yes
76	No			Yes	7	4	No		Yes	7	No		No		Yes
77	Yes	3	3	Yes	3	4	No		No		No		No		Yes
78	Yes	90	3	Yes	90	3	Yes	90	No		No		No		Yes
79	No			Yes	2	4	No		No		No		No		Yes
80	No			Yes	60	4	No		No		No		No		Yes
81	No			Yes	5	4	Yes	5	Yes	2	Yes	5	No		Yes
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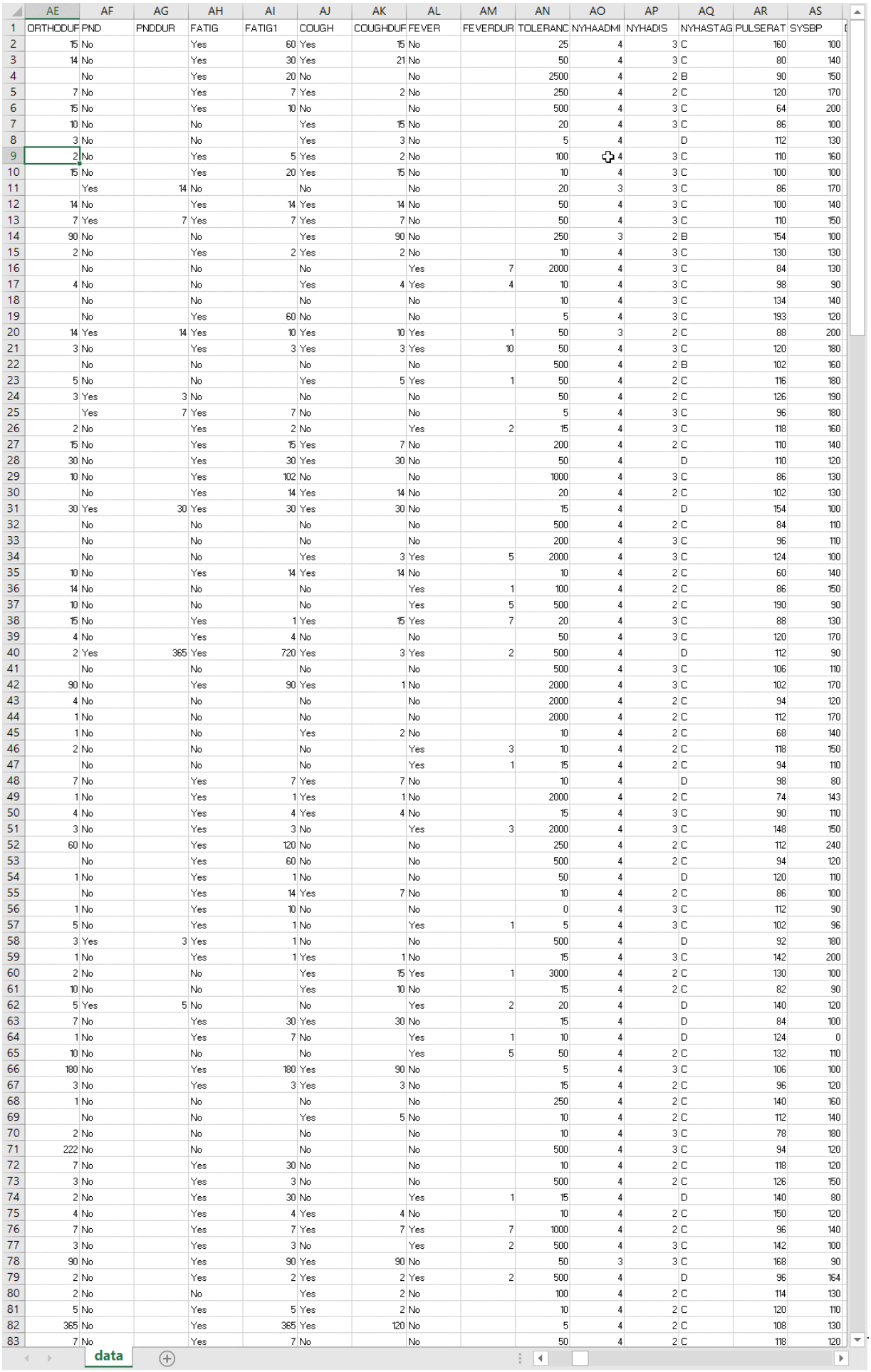
83	No			Yes	7	4	No		Yes	90	No		No		Yes

data



	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS
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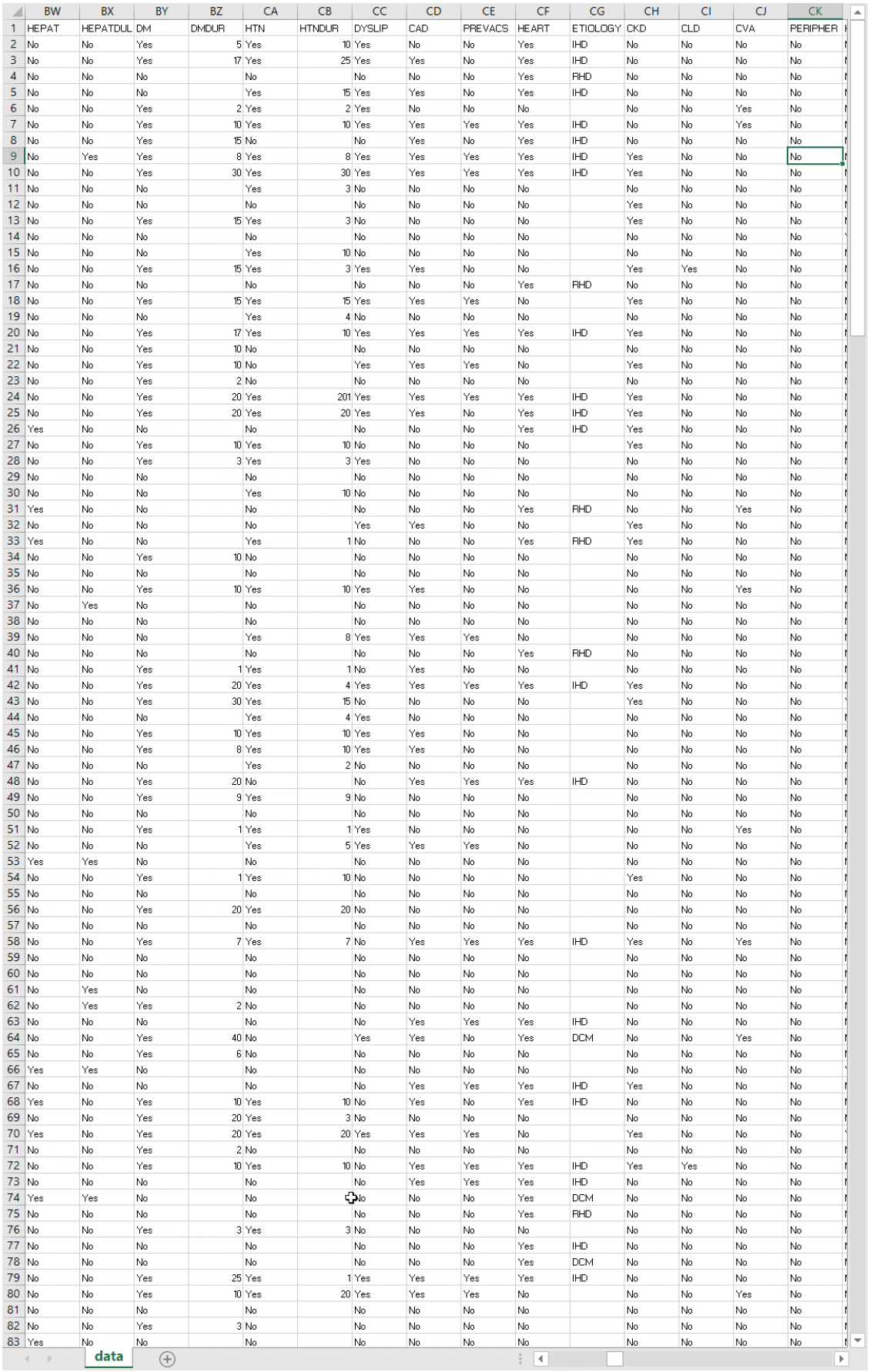
2	15	No		Yes	60	Yes	15	No		25	4	3	C	160	100
3	14	No		Yes	30	Yes	21	No		50	4	3	C	80	140
4		No		Yes	20	No		No		2500	4	2	B	90	150
5	7	No		Yes	7	Yes	2	No		250	4	2	C	120	170
6	15	No		Yes	10	No		No		500	4	3	C	64	200
7	10	No		No		Yes	15	No		20	4	3	C	86	100
8	3	No		No		Yes	3	No		5	4		D	112	130
9	2	No		Yes	5	Yes	2	No		100	4	3	C	110	160
10	15	No		Yes	20	Yes	15	No		10	4	3	C	100	100
11		Yes	14	No		No		No		20	3	3	C	86	170
12	14	No		Yes	14	Yes	14	No		50	4	3	C	100	140
13	7	Yes	7	Yes	7	Yes	7	No		50	4	3	C	110	150
14	90	No		No		Yes	90	No		250	3	2	B	154	100
15	2	No		Yes	2	Yes	2	No		10	4	3	C	130	130
16		No		No		No		Yes	7	2000	4	3	C	84	130
17	4	No		No		Yes	4	Yes	4	10	4	3	C	98	90
18		No		No		No		No		10	4	3	C	134	140
19		No		Yes	60	No		No		5	4	3	C	193	120
20	14	Yes	14	Yes	10	Yes	10	Yes	1	50	3	2	C	88	200
21	3	No		Yes	3	Yes	3	Yes	10	50	4	3	C	120	180
22		No		No		No		No		500	4	2	B	102	160
23	5	No		No		Yes	5	Yes	1	50	4	2	C	116	180
24	3	Yes	3	No		No		No		50	4	2	C	126	190
25		Yes	7	Yes	7	No		No		5	4	3	C	96	180
26	2	No		Yes	2	No		Yes	2	15	4	3	C	118	160
27	15	No		Yes	15	Yes	7	No		200	4	2	C	110	140
28	30	No		Yes	30	Yes	30	No		50	4		D	110	120
29	10	No		Yes	102	No		No		1000	4	3	C	86	130
30		No		Yes	14	Yes	14	No		20	4	2	C	102	130
31	30	Yes	30	Yes	30	Yes	30	No		15	4		D	154	100
32		No		No		No		No		500	4	2	C	84	110
33		No		No		No		No		200	4	3	C	96	110
34		No		No		Yes	3	Yes	5	2000	4	3	C	124	100
35	10	No		Yes	14	Yes	14	No		10	4	2	C	60	140
36	14	No		No		No		Yes	1	100	4	2	C	86	150
37	10	No		No		No		Yes	5	500	4	2	C	190	90
38	15	No		Yes	1	Yes	15	Yes	7	20	4	3	C	88	130
39	4	No		Yes	4	No		No		50	4	3	C	120	170
40	2	Yes	365	Yes	720	Yes	3	Yes	2	500	4		D	112	90
41		No		No		No		No		500	4	3	C	106	110
42	90	No		Yes	90	Yes	1	No		2000	4	3	C	102	170
43	4	No		No		No		No		2000	4	2	C	94	120
44	1	No		No		No		No		2000	4	2	C	112	170
45	1	No		No		Yes	2	No		10	4	2	C	68	140
46	2	No		No		No		Yes	3	10	4	2	C	118	150
47		No		No		No		Yes	1	15	4	2	C	94	110
48	7	No		Yes	7	Yes	7	No		10	4		D	98	80
49	1	No		Yes	1	Yes	1	No		2000	4	2	C	74	143
50	4	No		Yes	4	Yes	4	No		15	4	3	C	90	110
51	3	No		Yes	3	No		Yes	3	2000	4	3	C	148	150
52	60	No		Yes	120	No		No		250	4	2	C	112	240
53		No		Yes	60	No		No		500	4	2	C	94	120
54	1	No		Yes	1	No		No		50	4		D	120	110
55		No		Yes	14	Yes	7	No		10	4	2	C	86	100
56	1	No		Yes	10	No		No		0	4	3	C	112	90
57	5	No		Yes	1	No		Yes	1	5	4	3	C	102	96
58	3	Yes	3	Yes	1	No		No		500	4		D	92	180
59	1	No		Yes	1	Yes	1	No		15	4	3	C	142	200
60	2	No		No		Yes	15	Yes	1	3000	4	2	C	130	100
61	10	No		No		Yes	10	No		15	4	2	C	82	90
62	5	Yes	5	No		No		Yes	2	20	4		D	140	120
63	7	No		Yes	30	Yes	30	No		15	4		D	84	100
64	1	No		Yes	7	No		Yes	1	10	4		D	124	0
65	10	No		No		No		Yes	5	50	4	2	C	132	110
66	180	No		Yes	180	Yes	90	No		5	4	3	C	106	100
67	3	No		Yes	3	Yes	3	No		15	4	2	C	96	120
68	1	No		No		No		No		250	4	2	C	140	160
69		No		No		Yes	5	No		10	4	2	C	112	140
70	2	No		No		No		No		10	4	3	C	78	180
71	222	No		No		No		No		500	4	3	C	94	120
72	7	No		Yes	30	No		No		10	4	2	C	118	120
73	3	No		Yes	3	No		No		500	4	2	C	126	150
74	2	No		Yes	30	No		Yes	1	15	4		D	140	80
75	4	No		Yes	4	Yes	4	No		10	4	2	C	150	120
76	7	No		Yes	7	Yes	7	Yes	7	1000	4	2	C	96	140
77	3	No		Yes	3	No		Yes	2	500	4	3	C	142	100
78	90	No		Yes	90	Yes	90	No		50	3	3	C	168	90
79	2	No		Yes	2	Yes	2	Yes	2	500	4		D	96	164
80	2	No		No		Yes	2	No		100	4	2	C	114	130
81	5	No		Yes	5	Yes	2	No		10	4	2	C	120	110
82	365	No		Yes	365	Yes	120	No		5	4	2	C	108	130
83	7	No		Yes	7	No		No		50	4	2	C	118	120

	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG
1	SYSBP	DIASBP	RESPRATE	SATURATA	GCS	INTUBAT	INTUBATD	WAISTHIP	HEIGHT	WEIGHT	BMI	PALLOR	ICTERUS	CLUBBING	CYANOSIS
2	100	70	40	92	15	No	0	0.9				Yes	No	No	No
3	140	80	20	92	15	No	0	1	180	80	24.7	No	No	No	No
4	150	80	18	98	15	No	0	0.9	150	45	20	Yes	No	No	No
5	170	100	40	48	5	No	0	1.08				Yes	No	No	No
6	200	90	44	82	15	No	0	1.03	170	75	26	Yes	No	No	No
7	100	70	36	64	15	No	0	0.97	170	80	27.7	No	No	No	No
8	130	70	34	70	15	No	0	0.91				No	No	No	No
9	160	90	30	80	15	No	0	1.02	165	60	22	No	No	No	No
10	100	60	40	66	15	No	0	1.08	155	98	40.8	No	No	No	No
11	170	100	24	99	15	No	0	0.92	148	64	29.2	No	No	No	No
12	140	80	42	95	15	No	0	1.03	160	45	17.6	Yes	No	No	No
13	150	80	30	88	15	No	0	0.85				No	No	No	No
14	100	60	24	100	15	No	0		158	62	24.8	Yes	No	No	No
15	130	80	42	76	15	No	0					No	No	No	No
16	130	80	36	86	15	No	0					No	No	No	No
17	90	50	34	90	15	No	0					Yes	No	No	No
18	140	100	42	72	15	No	0					Yes	No	No	No
19	120	80	38	76	15	No	0	0.9	158	60	24	Yes	No	No	No
20	200	100	36	99	15	No	0	0.9				Yes	No	No	No
21	180	110	40	95	15	No	0					Yes	No	No	No
22	160	100	32	63	15	No	0	1.03	147	66	30.5	Yes	No	No	No
23	180	110	36	84	15	No	0		160	48	18.7	No	No	No	No
24	190	80	42	80	15	No	0		152	60	26	Yes	No	No	No
25	180	100	32	40	15	No	0		148	75	34.2	No	No	No	No
26	160	120	26	95	15	No	0	0.95	165	48	17.6	Yes	No	No	No
27	140	100	34	95	15	No	0	0.92				Yes	No	No	No
28	120	80	24	96	15	No	0	1	163	64	24.1	No	Yes	No	Yes
29	130	70	40	65	15	No	0		155	70	29.1	No	No	No	No
30	130	80	30	80	15	No	0					Yes	No	No	No
31	100	80	32	98	15	No	0	0.87	158	48	19.2	Yes	No	No	No
32	110	74	20	99	10	No	0	0.95	174	86	28.4	No	No	No	No
33	110	70	24	98	15	No	0	1.03	170	80	27.7	No	No	Yes	No
34	100	60	44	82	15	No	0	1.02	151	63	27.6	No	No	No	No
35	140	70	32	99	15	No	0	1.02	160	70	27.3	No	No	No	No
36	150	100	22	88	15	No	0	0.97	152	71	30.7	Yes	No	No	No
37	90	60	30	99	15	No	0	0.88	155	55	22.9	No	No	No	No
38	130	90	40	80	15	No	0	0.97	152	40	17.3	Yes	No	No	No
39	170	80	40	92	15	No	0	0.95	156	89	26.7	Yes	No	No	No
40	90	70	40	85	15	No	0	0.93	165	75	27.5	Yes	No	No	No
41	110	60	20	90	3	Yes	3		177	73	23.3	No	No	No	No
42	170	80	32	90	15	No		0.94	157	45	18.3	No	No	No	No
43	120	70	24	75	15	No	0	0.93	180	79	24.4	Yes	No	No	No
44	170	120	28	93	15	No	0	1.23	142	85	42.2	No	No	No	No
45	140	80	38	91	15	No	0		172	85	28.7	No	No	No	No
46	150	90	40	78	15	No	0	0.93	168	68	24.1	Yes	No	No	No
47	110	60	26	89	15	No	0	0.96	165	69	28.7	No	No	No	No
48	80	60	44	80	15	Yes	6	0.98	160	78	29.3	Yes	No	No	No
49	143	60	20	98	15	Yes	3		157	75	30.4	No	No	No	No
50	110	80	22	90	15	No	0	0.93	146	49	23	Yes	No	No	No
51	150	70	36	93	15	No	0	1.04	178	76	24	Yes	No	No	No
52	240	140	40	90	15	No	0	1.02	176	124	40	No	No	No	No
53	120	80	24	90	15	No	0	0.95	153	54	23.1	Yes	No	No	No
54	110	70	48	36	15	No	0		168	55	19.3	Yes	No	No	No
55	100	60	26	88	15	Yes	3	0.93	158	59	23.6	Yes	No	No	No
56	90	60	25	86	3	Yes	10		164	78	29	No	No	No	No
57	96	60	22	99	15	No	0	0.94	155	63	26.2	Yes	No	No	No
58	180	100	44	90	15	No	0		175	70	22.9	No	No	No	No
59	200	140	44	77	15	No	0	1.04	161	60	23.1	No	No	No	No
60	100	60	44	80	15	No	0	1.03	156	40	16.4	No	No	No	No
61	90	50	30	96	15	No	0	1.02	146	76	35.7	Yes	No	No	No
62	120	80	44	50	15	No	0		178	96	30.3	No	No	No	No
63	100	60	26	97	15	No	0		172	67	22.6	No	No	No	No
64	0	0	24	98	15	No	0		178	85	26.8	No	No	No	No
65	110	70	36	93	15	No	0	0.89	148	70	32	No	No	No	No
66	100	60	30	93	15	No	0	1.02	182	84	25.4	No	No	No	No
67	120	80	24	97	15	No	0	1.02	150	50	22.2	Yes	No	No	No
68	160	110	48	85	15	No	0	0.93	162	77	29.3	No	No	No	No
69	140	80	28	93	15	No	0	0.93	170	70	24.2	Yes	No	No	No
70	180	100	38	90	15	Yes	4	0.97	155	62	25.8	No	No	No	No
71	120	80	45	84	15	No	0	0.97	177	79	25.2	No	No	No	No
72	120	80	46	93	15	No	0	0.95	68	158	27.2	No	No	No	No
73	150	80	24	92	15	No	0	0.97	182	57	17.2	No	No	No	No
74	80	50	28	93	15	No	0		177	68	21.7	Yes	Yes	No	No
75	120	60	30	96	15	No	0	0.94	153	53	22.6	Yes	Yes	No	No
76	140	100	34	85	15	No	0	0.97	150	105	46.7	No	No	No	No
77	100	60	42	60	15	No	0	0.97	165	76	27.9	No	No	No	No
78	90	60	34	96	15	No	0	0.95	165	56	20.6	No	No	No	No
79	164	110	40	88	15	No	0	1.01	165	55	20.2	No	No	No	No
80	130	80	36	98	15	No	0	1.03	159	83	32.8	No	No	No	No
81	110	70	28	85	15	No	0	1.06	160	70	31.1	Yes	No	No	No
82	130	100	40	89	15	No	0	0.97	158	70	28	No	No	No	No
83	120	80	32	95	15	No	0	0.9	144	82	38.6	Yes	No	No	No

data

	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV
1	LYMPH	PEDAL	JVP	S3	S4	CREPTS	CREPTSYE	MS	MR	TS	TR	AS	AR	PS	PR
2	No	No	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
3	No	Yes	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
4	No	Yes	Yes	No	No	No		No	No	No	Yes	No	No	No	No
5	No	Yes	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
6	No	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
7	No	Yes	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
8	No	No	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
9	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
10	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
11	No	Yes	Yes	No	No	No		No	No	No	No	No	No	No	No
12	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
13	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
14	No	No	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
15	No	Yes	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
16	No	Yes	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
17	No	Yes	Yes	No	No	Yes	Coarse crepi	Yes	No	No	Yes	No	No	No	No
18	No	No	Yes	No	No	Yes	Coarse crepi	No	No	No	No	Yes	No	No	No
19	No	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
20	No	No	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	Yes	No	No	No
21	No	Yes	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
22	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
23	No	No	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
24	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
25	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
26	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	Yes	No	No	No	No
27	No	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
28	No	No	No	No	No	No		No	No	No	No	No	No	No	No
29	No	Yes	No	No	No	Yes	Coarse crepi	No	Yes	No	No	No	No	No	No
30	No	No	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
31	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
32	No	No	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
33	No	Yes	No	No	No	No		No	Yes	No	No	No	Yes	No	No
34	No	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
35	No	Yes	Yes	No	Yes	No	Coarse crepi	No	No	No	No	No	No	No	No
36	No	No	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
37	No	No	Yes	Yes	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
38	No	Yes	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
39	Yes	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
40	No	No	Yes	No	No	Yes	Basal fine cr	Yes	No	No	No	No	No	No	No
41	No	No	No	No	No	No		No	No	No	No	Yes	No	No	No
42	No	No	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
43	No	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
44	No	No	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
45	No	Yes	Yes	No	Yes	Yes	Coarse crepi	No	No	No	No	No	No	No	No
46	No	Yes	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
47	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
48	No	No	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
49	No	No	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
50	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
51	No	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
52	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
53	No	Yes	Yes	Yes	No	No	Coarse crepi	No	No	No	No	No	No	No	No
54	Yes	Yes	Yes	No	Yes	Yes	Coarse crepi	No	No	No	No	No	No	No	No
55	No	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
56	No	Yes	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
57	No	No	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
58	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
59	No	No	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
60	No	No	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
61	No	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	Yes	No	No	No	No
62	No	Yes	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
63	No	Yes	No	Yes	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
64	No	Yes	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
65	No	No	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
66	No	Yes	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
67	No	No	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
68	No	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
69	No	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
70	No	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
71	No	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
72	No	Yes	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
73	No	No	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
74	No	Yes	Yes	Yes	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
75	No	Yes	Yes	No	No	Yes	Coarse crepi	Yes	No	No	No	No	No	No	No
76	No	Yes	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
77	No	No	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
78	No	No	Yes	Yes	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
79	No	No	Yes	Yes	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
80	No	Yes	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
81	No	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
82	No	Yes	Yes		No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
83	No	Yes	Yes	No	No	No		No	No	No	No	No	No	No	No

data



	BW	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG	CH	CI	CJ	CK
1	HEPAT	HEPATDUL	DM	DMDUR	HTN	HTNDUR	DYSLIP	CAD	PREVACS	HEART	ETIOLOGY	CKD	CLD	CVA	PERIPHER
2	No	No	Yes	5	Yes	10	Yes	No	No	Yes	IHD	No	No	No	No
3	No	No	Yes	17	Yes	25	Yes	Yes	No	Yes	IHD	No	No	No	No
4	No	No	No		No		No	No	No	Yes	RHD	No	No	No	No
5	No	No	No		Yes	15	Yes	Yes	No	Yes	IHD	No	No	No	No
6	No	No	Yes	2	Yes	2	Yes	No	No	No		No	No	Yes	No
7	No	No	Yes	10	Yes	10	Yes	Yes	Yes	Yes	IHD	No	No	Yes	No
8	No	No	Yes	15	No		No	Yes	No	Yes	IHD	No	No	No	No
9	No	Yes	Yes	8	Yes	8	Yes	Yes	Yes	Yes	IHD	Yes	No	No	No
10	No	No	Yes	30	Yes	30	Yes	Yes	Yes	Yes	IHD	Yes	No	No	No
11	No	No	No		Yes	3	No	No	No	No		No	No	No	No
12	No	No	No		No		No	No	No	No		Yes	No	No	No
13	No	No	Yes	15	Yes	3	No	No	No	No		Yes	No	No	No
14	No	No	No		No		No	No	No	No		No	No	No	No
15	No	No	No		Yes	10	No	No	No	No		No	No	No	No
16	No	No	Yes	15	Yes	3	Yes	Yes	No	No		Yes	Yes	No	No
17	No	No	No		No		No	No	No	Yes	RHD	No	No	No	No
18	No	No	Yes	15	Yes	15	Yes	Yes	Yes	No		Yes	No	No	No
19	No	No	No		Yes	4	No	No	No	No		No	No	No	No
20	No	No	Yes	17	Yes	10	Yes	Yes	Yes	Yes	IHD	Yes	No	No	No
21	No	No	Yes	10	No		No	No	No	No		No	No	No	No
22	No	No	Yes	10	No		Yes	Yes	Yes	No		Yes	No	No	No
23	No	No	Yes	2	No		No	No	No	No		No	No	No	No
24	No	No	Yes	20	Yes	201	Yes	Yes	Yes	Yes	IHD	Yes	No	No	No
25	No	No	Yes	20	Yes	20	Yes	Yes	No	Yes	IHD	Yes	No	No	No
26	Yes	No	No		No		No	No	No	Yes	IHD	Yes	No	No	No
27	No	No	Yes	10	Yes	10	No	No	No	No		Yes	No	No	No
28	No	No	Yes	3	Yes	3	Yes	No	No	No		No	No	No	No
29	No	No	No		No		No	No	No	No		No	No	No	No
30	No	No	No		Yes	10	No	No	No	No		No	No	No	No
31	Yes	No	No		No		No	No	No	Yes	RHD	No	No	Yes	No
32	No	No	No		No		Yes	Yes	No	No		Yes	No	No	No
33	Yes	No	No		Yes	1	No	No	No	Yes	RHD	Yes	No	No	No
34	No	No	Yes	10	No		No	No	No	No		No	No	No	No
35	No	No	No		No		No	No	No	No		No	No	No	No
36	No	No	Yes	10	Yes	10	Yes	Yes	No	No		No	No	Yes	No
37	No	Yes	No		No		No	No	No	No		No	No	No	No
38	No	No	No		No		No	No	No	No		No	No	No	No
39	No	No	No		Yes	8	Yes	Yes	Yes	No		No	No	No	No
40	No	No	No		No		No	No	No	Yes	RHD	No	No	No	No
41	No	No	Yes	1	Yes	1	No	Yes	No	No		No	No	No	No
42	No	No	Yes	20	Yes	4	Yes	Yes	Yes	Yes	IHD	Yes	No	No	No
43	No	No	Yes	30	Yes	15	No	No	No	No		Yes	No	No	No
44	No	No	No		Yes	4	Yes	No	No	No		No	No	No	No
45	No	No	Yes	10	Yes	10	Yes	Yes	No	No		No	No	No	No
46	No	No	Yes	8	Yes	10	Yes	Yes	No	No		No	No	No	No
47	No	No	No		Yes	2	No	No	No	No		No	No	No	No
48	No	No	Yes	20	No		No	Yes	Yes	Yes	IHD	No	No	No	No
49	No	No	Yes	9	Yes	9	No	No	No	No		No	No	No	No
50	No	No	No		No		No	No	No	No		No	No	No	No
51	No	No	Yes	1	Yes	1	Yes	No	No	No		No	No	Yes	No
52	No	No	No		Yes	5	Yes	Yes	Yes	No		No	No	No	No
53	Yes	Yes	No		No		No	No	No	No		No	No	No	No
54	No	No	Yes	1	Yes	10	No	No	No	No		Yes	No	No	No
55	No	No	No		No		No	No	No	No		No	No	No	No
56	No	No	Yes	20	Yes	20	No	No	No	No		No	No	No	No
57	No	No	No		No		No	No	No	No		No	No	No	No
58	No	No	Yes	7	Yes	7	No	Yes	Yes	Yes	IHD	Yes	No	Yes	No
59	No	No	No		No		No	No	No	No		No	No	No	No
60	No	No	No		No		No	No	No	No		No	No	No	No
61	No	Yes	No		No		No	No	No	No		No	No	No	No
62	No	Yes	Yes	2	No		No	No	No	No		No	No	No	No
63	No	No	No		No		No	Yes	Yes	Yes	IHD	No	No	No	No
64	No	No	Yes	40	No		Yes	Yes	No	Yes	DCM	No	No	Yes	No
65	No	No	Yes	6	No		No	No	No	No		No	No	No	No
66	Yes	Yes	No		No		No	No	No	No		No	No	No	No
67	No	No	No		No		No	Yes	Yes	Yes	IHD	Yes	No	No	No
68	Yes	No	Yes	10	Yes	10	No	Yes	No	Yes	IHD	No	No	No	No
69	No	No	Yes	20	Yes	3	No	No	No	No		No	No	No	No
70	Yes	No	Yes	20	Yes	20	Yes	Yes	Yes	No		Yes	No	No	No
71	No	No	Yes	2	No		No	No	No	No		No	No	No	No
72	No	No	Yes	10	Yes	10	No	Yes	Yes	Yes	IHD	Yes	Yes	No	No
73	No	No	No		No		No	Yes	Yes	Yes	IHD	No	No	No	No
74	Yes	Yes	No		No		No	No	No	Yes	DCM	No	No	No	No
75	No	No	No		No		No	No	No	Yes	RHD	No	No	No	No
76	No	No	Yes	3	Yes	3	No	No	No	No		No	No	No	No
77	No	No	No		No		No	No	No	Yes	IHD	No	No	No	No
78	No	No	No		No		No	No	No	Yes	DCM	No	No	No	No
79	No	No	Yes	25	Yes	1	Yes	Yes	Yes	Yes	IHD	No	No	No	No
80	No	No	Yes	10	Yes	20	Yes	Yes	Yes	No		No	No	Yes	No
81	No	No	No		No		No	No	No	No		No	No	No	No
82	No	No	Yes	3	No		No	No	No	No		No	No	No	No
83	Yes	No	No		No		No	No	No	No		No	No	No	No

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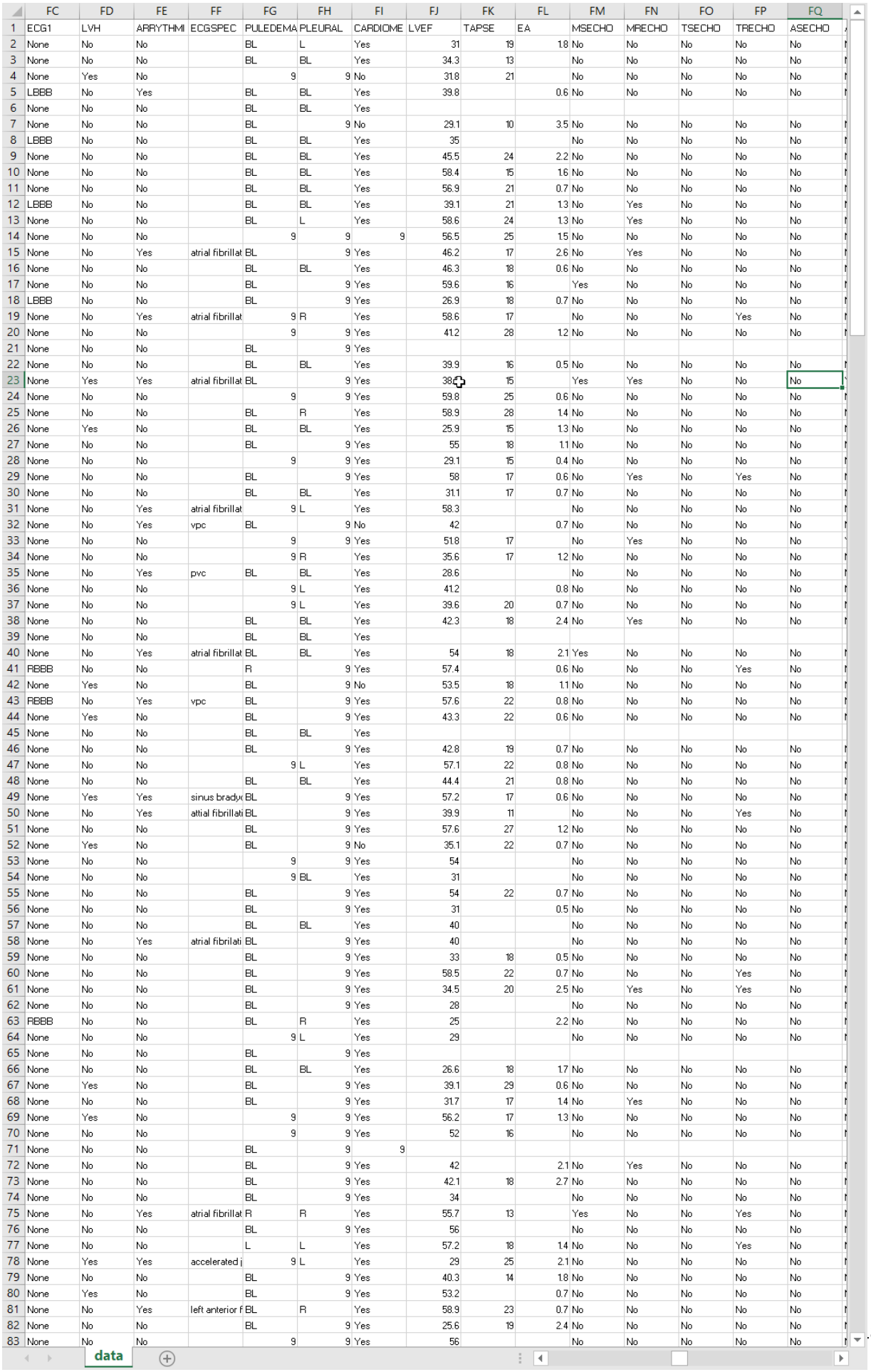
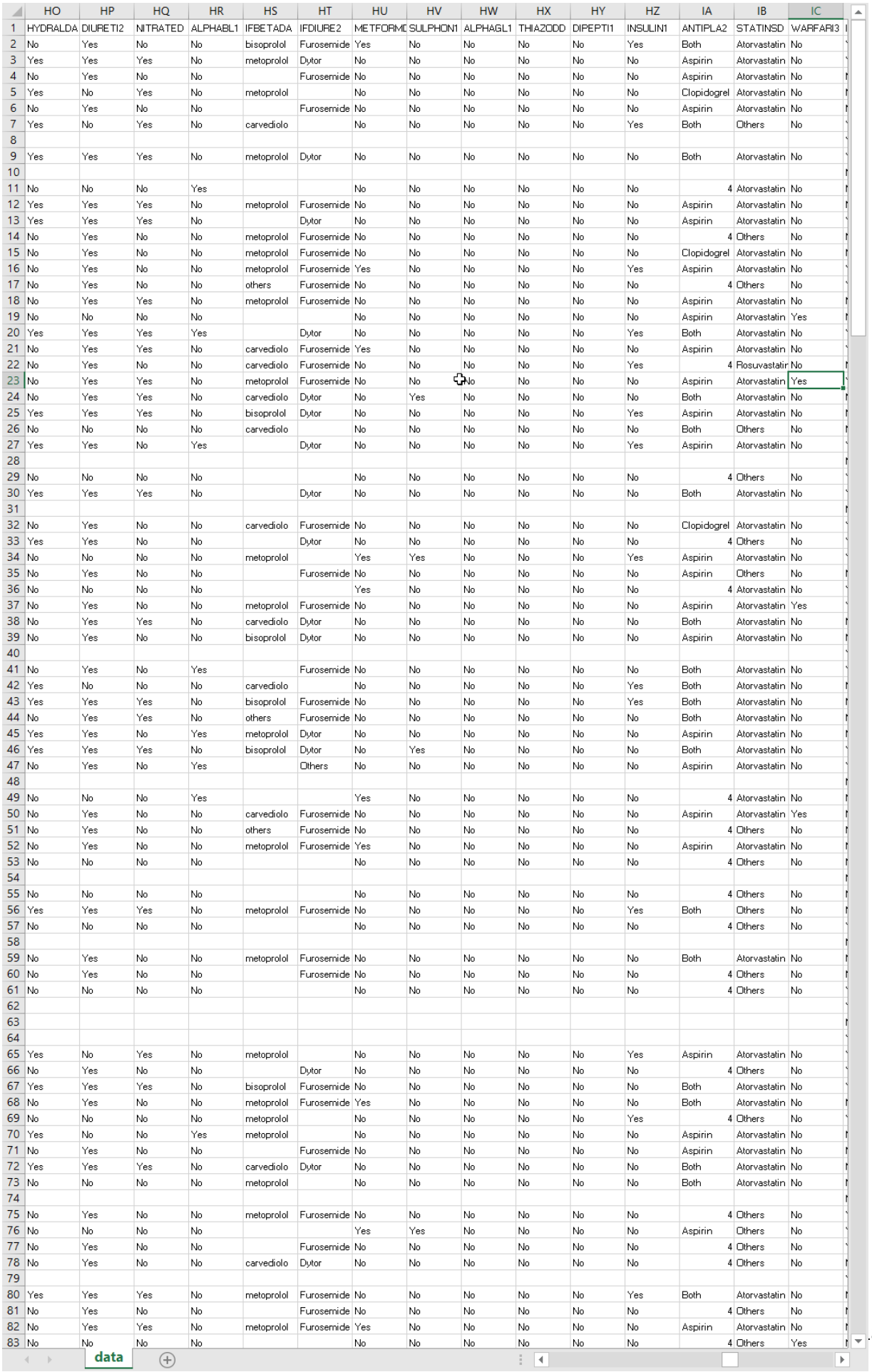


	FC	FD	FE	FF	FG	FH	FI	FJ	FK	FL	FM	FN	FO	FP	FQ
1	ECG1	LVH	ARRYTHMI	ECGSPEC	PULEDEMA	PLEURAL	CARDIOME	LVEF	TAPSE	EA	MSECHO	MRECHO	TSECHO	TRECHO	ASECHO
2	None	No	No		BL	L	Yes	31	19	1.8	No	No	No	No	No
3	None	No	No		BL	BL	Yes	34.3	13		No	No	No	No	No
4	None	Yes	No		9	9	No	31.8	21		No	No	No	No	No
5	LBBB	No	Yes		BL	BL	Yes	39.8		0.6	No	No	No	No	No
6	None	No	No		BL	BL	Yes								
7	None	No	No		BL	9	No	29.1	10	3.5	No	No	No	No	No
8	LBBB	No	No		BL	BL	Yes	35			No	No	No	No	No
9	None	No	No		BL	BL	Yes	45.5	24	2.2	No	No	No	No	No
10	None	No	No		BL	BL	Yes	58.4	15	1.6	No	No	No	No	No
11	None	No	No		BL	BL	Yes	56.9	21	0.7	No	No	No	No	No
12	LBBB	No	No		BL	BL	Yes	39.1	21	1.3	No	Yes	No	No	No
13	None	No	No		BL	L	Yes	58.6	24	1.3	No	Yes	No	No	No
14	None	No	No		9	9	9	56.5	25	1.5	No	No	No	No	No
15	None	No	Yes	atrial fibrillat	BL	9	Yes	46.2	17	2.6	No	Yes	No	No	No
16	None	No	No		BL	BL	Yes	46.3	18	0.6	No	No	No	No	No
17	None	No	No		BL	9	Yes	59.6	16		Yes	No	No	No	No
18	LBBB	No	No		BL	9	Yes	26.9	18	0.7	No	No	No	No	No
19	None	No	Yes	atrial fibrillat	9	R	Yes	58.6	17		No	No	No	Yes	No
20	None	No	No		9	9	Yes	41.2	28	1.2	No	No	No	No	No
21	None	No	No		BL	9	Yes								
22	None	No	No		BL	BL	Yes	39.9	16	0.5	No	No	No	No	No
23	None	Yes	Yes	atrial fibrillat	BL	9	Yes	38	15		Yes	Yes	No	No	No
24	None	No	No		9	9	Yes	59.8	25	0.6	No	No	No	No	No
25	None	No	No		BL	R	Yes	58.9	28	1.4	No	No	No	No	No
26	None	Yes	No		BL	BL	Yes	25.9	15	1.3	No	No	No	No	No
27	None	No	No		BL	9	Yes	55	18	1.1	No	No	No	No	No
28	None	No	No		9	9	Yes	29.1	15	0.4	No	No	No	No	No
29	None	No	No		BL	9	Yes	58	17	0.6	No	Yes	No	Yes	No
30	None	No	No		BL	BL	Yes	31.1	17	0.7	No	No	No	No	No
31	None	No	Yes	atrial fibrillat	9	L	Yes	58.3			No	No	No	No	No
32	None	No	Yes	vpc	BL	9	No	42		0.7	No	No	No	No	No
33	None	No	No		9	9	Yes	51.8	17		No	Yes	No	No	No
34	None	No	No		9	R	Yes	35.6	17	1.2	No	No	No	No	No
35	None	No	Yes	pvc	BL	BL	Yes	28.6			No	No	No	No	No
36	None	No	No		9	L	Yes	41.2		0.8	No	No	No	No	No
37	None	No	No		9	L	Yes	39.6	20	0.7	No	No	No	No	No
38	None	No	No		BL	BL	Yes	42.3	18	2.4	No	Yes	No	No	No
39	None	No	No		BL	BL	Yes								
40	None	No	Yes	atrial fibrillat	BL	BL	Yes	54	18	2.1	Yes	No	No	No	No
41	RBBB	No	No		R	9	Yes	57.4		0.6	No	No	No	Yes	No
42	None	Yes	No		BL	9	No	53.5	18	1.1	No	No	No	No	No
43	RBBB	No	Yes	vpc	BL	9	Yes	57.6	22	0.8	No	No	No	No	No
44	None	Yes	No		BL	9	Yes	43.3	22	0.6	No	No	No	No	No
45	None	No	No		BL	BL	Yes								
46	None	No	No		BL	9	Yes	42.8	19	0.7	No	No	No	No	No
47	None	No	No		9	L	Yes	57.1	22	0.8	No	No	No	No	No
48	None	No	No		BL	BL	Yes	44.4	21	0.8	No	No	No	No	No
49	None	Yes	Yes	sinus brady(	BL	9	Yes	57.2	17	0.6	No	No	No	No	No
50	None	No	Yes	attial fibrillati	BL	9	Yes	39.9	11		No	No	No	Yes	No
51	None	No	No		BL	9	Yes	57.6	27	1.2	No	No	No	No	No
52	None	Yes	No		BL	9	No	35.1	22	0.7	No	No	No	No	No
53	None	No	No		9	9	Yes	54			No	No	No	No	No
54	None	No	No		9	BL	Yes	31			No	No	No	No	No
55	None	No	No		BL	9	Yes	54	22	0.7	No	No	No	No	No
56	None	No	No		BL	9	Yes	31		0.5	No	No	No	No	No
57	None	No	No		BL	BL	Yes	40			No	No	No	No	No
58	None	No	Yes	atrial fibrilati	BL	9	Yes	40			No	No	No	No	No
59	None	No	No		BL	9	Yes	33	18	0.5	No	No	No	No	No
60	None	No	No		BL	9	Yes	58.5	22	0.7	No	No	No	Yes	No
61	None	No	No		BL	9	Yes	34.5	20	2.5	No	Yes	No	Yes	No
62	None	No	No		BL	9	Yes	28			No	No	No	No	No
63	RBBB	No	No		BL	R	Yes	25		2.2	No	No	No	No	No
64	None	No	No		9	L	Yes	29			No	No	No	No	No
65	None	No	No		BL	9	Yes								
66	None	No	No		BL	BL	Yes	26.6	18	1.7	No	No	No	No	No
67	None	Yes	No		BL	9	Yes	39.1	29	0.6	No	No	No	No	No
68	None	No	No		BL	9	Yes	31.7	17	1.4	No	Yes	No	No	No
69	None	Yes	No		9	9	Yes	56.2	17	1.3	No	No	No	No	No
70	None	No	No		9	9	Yes	52	16		No	No	No	No	No
71	None	No	No		BL	9	9								
72	None	No	No		BL	9	Yes	42		2.1	No	Yes	No	No	No
73	None	No	No		BL	9	Yes	42.1	18	2.7	No	No	No	No	No
74	None	No	No		BL	9	Yes	34			No	No	No	No	No
75	None	No	Yes	atrial fibrillat	R	R	Yes	55.7	13		Yes	No	No	Yes	No
76	None	No	No		BL	9	Yes	56			No	No	No	No	No
77	None	No	No		L	L	Yes	57.2	18	1.4	No	No	No	Yes	No
78	None	Yes	Yes	accelerated j	9	L	Yes	29	25	2.1	No	No	No	No	No
79	None	No	No		BL	9	Yes	40.3	14	1.8	No	No	No	No	No
80	None	Yes	No		BL	9	Yes	53.2		0.7	No	No	No	No	No
81	None	No	Yes	left anterior f	BL	R	Yes	58.9	23	0.7	No	No	No	No	No
82	None	No	No		BL	9	Yes	25.6	19	2.4	No	No	No	No	No
83	None	No	No		9	9	Yes	56			No	No	No	No	No

	GJ	GK	GL	GM	GN	GO	GP	GQ	GR	GS	GT	GU	GV	GW	GX
1	URICACID	NTPROBNP	SOSMOLAF	ABGPH	LACTATE	NIV	NIVDUR	INTUBAT1	INTUBAT2	ACEITX	ARBTX	ALDOSTTX	CCBTX	BBLOCKE1	DIGOXINT
2				7.3	2	Yes	1	No	0	Yes	Yes	No	No	Yes	No
3				7.4	0.6	No	0	No	0	No	Yes	No	No	Yes	No
4						No	0	No	0	No	No	No	No	No	No
5	9.3			7.2	4.3	No	0	No	0	Yes	No	No	Yes	Yes	No
6	9			7.38	2.8	No	0	No	0	Yes	No	Yes	Yes	Yes	No
7	7.3		288	7.29	4.3	Yes	1	No	0	No	No	Yes	No	Yes	Yes
8				7.26	5.9	No	0	No	0	No	No	No	No	No	No
9			287	7.41	0.7	No	0	No	0	No	No	No	Yes	Yes	No
10	3.9		315	7.35	0.8	No	0	No	0	No	Yes	No	No	Yes	No
11	6.3					No	0	No	0	No	Yes	No	Yes	No	No
12				7.39	1.4	No	0	No	0	No	No	No	No	Yes	No
13				7.4	1.4	No	0	No	0	No	No	No	Yes	No	No
14	7.9			7.39	0.8	No	0	No	0	Yes	No	No	No	Yes	No
15			254	7.36	1.4	Yes	2	No	0	Yes	No	Yes	No	Yes	Yes
16				7.43	0.8	No	0	No	0	Yes	No	No	No	Yes	No
17		2842		7.41	0.7	Yes	1	No	0	No	No	No	No	No	Yes
18	4.9		275	7.19	3.9	Yes	1	No	0	No	No	Yes	No	Yes	No
19				7.44	1.2	No	0	No	0	Yes	No	No	Yes	Yes	Yes
20			287	7.37	0.7	Yes	3	No	0	No	No	No	Yes	No	No
21				7.4	1.4	No	0	No	0	No	Yes	No	No	No	No
22				7.07	3.1	No	0	No	0	No	No	No	Yes	No	No
23				7.57	1.3	No	0	No	0	No	Yes	Yes	No	Yes	Yes
24		7308		7.3	1.1	Yes	1	No	0	No	No	No	Yes	Yes	No
25				7.3	0.8	Yes	2	No	0	No	No	No	Yes	Yes	No
26				7.35	0.7	No	0	No	0	Yes	No	Yes	No	Yes	Yes
27				7.49	0.8	No	0	No	0	No	No	No	No	No	No
28				7.39	6.9	No	0	No	0	No	Yes	No	No	Yes	No
29				7.5	1.5	No	0	No	0	Yes	No	Yes	No	No	No
30				7.55	1.3	Yes	1	No	0	No	No	No	No	No	No
31	3.3					No	0	No	0	No	No	No	No	No	Yes
32				7.46	1.5	Yes	1	No	0	Yes	No	No	No	Yes	Yes
33						No	0	No	0	No	No	No	No	No	Yes
34				7.42	2.6	No	0	No	0	Yes	No	No	No	Yes	Yes
35	5.9		296	7.31	0.7	Yes	1	No	0	No	No	No	No	No	Yes
36			255	7.45	0.7	No	0	No	0	No	No	No	No	Yes	No
37						No	0	No	0	No	No	No	No	Yes	No
38				7.48	2.8	No	0	No	0	Yes	No	No	No	Yes	No
39				7.44	0.8	No	0	No	0	No	No	No	No	Yes	No
40		6130		7.41	1.7	Yes	2	No	0	No	No	No	No	No	No
41		763		6.8	2.9	No	0	Yes	3	Yes	No	No	No	No	No
42						No	0	No	0	No	No	No	Yes	No	No
43				7.37	1	No	0	No	0	No	No	No	No	Yes	Yes
44				7.53	0.5	Yes	1	No	0	Yes	No	No	Yes	Yes	No
45				7.23	2.1	Yes	1	No	0	No	No	No	No	Yes	No
46				7.39	2.3	Yes	1	No	0	No	No	No	No	Yes	No
47				7.39	0.8	Yes	1	No	0	No	Yes	No	No	Yes	No
48		6692		7.45	2.1	No	0	Yes	6	No	No	No	No	No	Yes
49		15211		7.18	9.2	No	0	Yes	3	Yes	No	No	Yes	Yes	No
50						No	0	No	0	Yes	No	No	Yes	Yes	No
51				7.45	1.6	Yes	1	No	0	No	No	Yes	Yes	No	No
52				7.48	0.9	No	0	No	0	No	Yes	Yes	Yes	Yes	Yes
53	6.3					No	0	No	0	No	No	No	No	No	No
54				7.21	4.2	Yes	2	No	0	No	No	No	No	Yes	No
55				7.5	1	No	0	Yes	3	No	No	No	No	No	No
56	9.8	35000		7.27	1.8	No	0	Yes	10	No	No	No	No	Yes	No
57				7.49	1.6	Yes	3	No	0	No	No	No	No	No	No
58				7.34	1.4	Yes	1	No	0	No	No	No	Yes	No	Yes
59				7.23	3.6	Yes	2	No	0	Yes	No	No	No	Yes	No
60				7.47	1.7	Yes	4	No	0	No	No	No	No	No	No
61	8.3			7.44	1	Yes	1	No	0	No	No	No	No	No	No
62	16.1			7.25	9.5	Yes	3	No	0	No	No	No	No	No	Yes
63	19.4			7.4	1.6	Yes	5	No	0	No	No	No	No	Yes	Yes
64		10900		7.44	2.2	Yes	1	No	0	No	No	No	No	Yes	Yes
65				7.33	4.1	No	0	No	0	No	No	No	No	No	Yes
66				7.21	5.7	Yes	3	No	0	No	No	Yes	No	No	Yes
67				7.32	0.7	No	0	No	0	No	No	No	No	Yes	No
68				7.37	2.9	No	0	No	0	Yes	No	No	No	Yes	Yes
69	5.6		279	7.45	2.1	Yes	1	No	0	No	No	No	No	Yes	No
70	9.7	5775		7.4	0.9	No	0	Yes	4	No	No	No	Yes	No	No
71				7.57	1.6	No	0	No	0	No	No	No	No	No	No
72			272	7.35	2.2	No	0	No	0	No	No	No	No	Yes	No
73				7.39	5.2	No	0	No	0	No	No	No	No	Yes	No
74			279	7.48	4.1	Yes	1	No	0	No	No	No	No	No	Yes
75						No	0	No	0	No	No	No	Yes	Yes	No
76				7.37	2.6	Yes	2	No	0	No	No	No	Yes	No	No
77				7.43	1.1	No	0	No	0	No	No	No	No	No	No
78				7.34	1	Yes	3	No	0	No	Yes	No	Yes	Yes	No
79	7.3			7.41	1.3	No	0	No	0	No	No	No	Yes	No	No
80				7.37	1	No	0	No	0	No	No	No	Yes	Yes	No
81				7.37	0.7	No	0	No	0	Yes	No	No	No	No	No
82				7.42	1	Yes	1	No	0	No	No	Yes	No	Yes	Yes
83				7.57	0.7	No	0	No	0	No	No	No	No	No	No

data

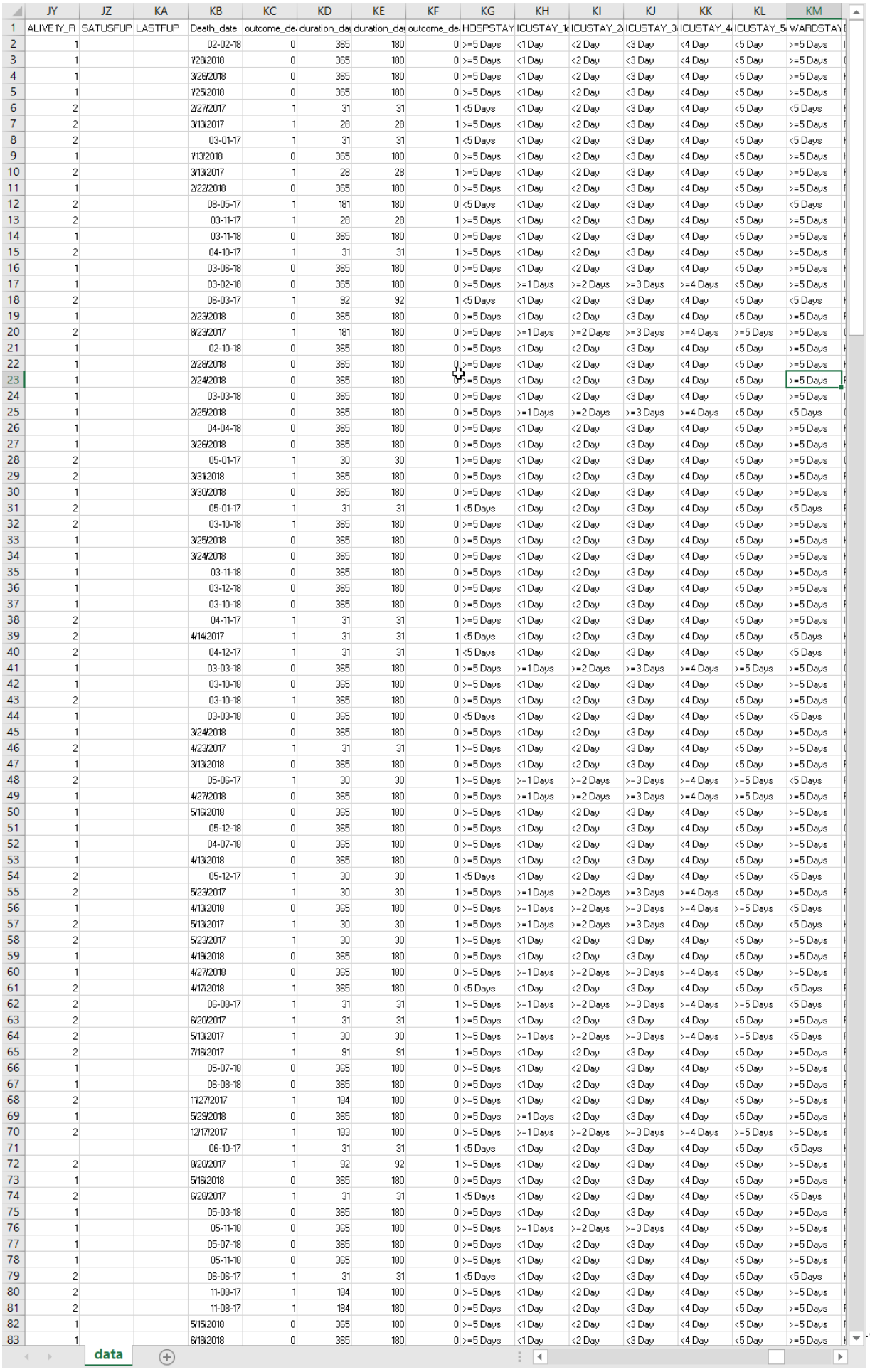


	HO	HP	HQ	HR	HS	HT	HU	HV	HW	HX	HY	HZ	IA	IB	IC
1	HYDRALDA	DIURETI2	NITRATED	ALPHABL1	IFBETADA	IFDIURE2	METFORMI	SULPHON1	ALPHAGL1	THIAZODD	DIPEPTI1	INSULIN1	ANTIPLA2	STATINSD	WARFARI3
2	No	Yes	No	No	bisoprolol	Furosemide	Yes	No	No	No	No	Yes	Both	Atorvastatin	No
3	Yes	Yes	Yes	No	metoprolol	Dytor	No	No	No	No	No	No	Aspirin	Atorvastatin	No
4	No	Yes	No	No		Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	No
5	Yes	No	Yes	No	metoprolol		No	No	No	No	No	No	Clopidogrel	Atorvastatin	No
6	No	Yes	No	No		Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	No
7	Yes	No	Yes	No	carvediolo		No	No	No	No	No	Yes	Both	Others	No
8															
9	Yes	Yes	Yes	No	metoprolol	Dytor	No	No	No	No	No	No	Both	Atorvastatin	No
10															
11	No	No	No	Yes			No	No	No	No	No	No	4	Atorvastatin	No
12	Yes	Yes	Yes	No	metoprolol	Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	No
13	Yes	Yes	Yes	No		Dytor	No	No	No	No	No	No	Aspirin	Atorvastatin	No
14	No	Yes	No	No	metoprolol	Furosemide	No	No	No	No	No	No	4	Others	No
15	No	Yes	No	No	metoprolol	Furosemide	No	No	No	No	No	No	Clopidogrel	Atorvastatin	No
16	No	Yes	No	No	metoprolol	Furosemide	Yes	No	No	No	No	Yes	Aspirin	Atorvastatin	No
17	No	Yes	No	No	others	Furosemide	No	No	No	No	No	No	4	Others	No
18	No	Yes	Yes	No	metoprolol	Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	No
19	No	No	No	No			No	No	No	No	No	No	Aspirin	Atorvastatin	Yes
20	Yes	Yes	Yes	Yes		Dytor	No	No	No	No	No	Yes	Both	Atorvastatin	No
21	No	Yes	Yes	No	carvediolo	Furosemide	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No
22	No	Yes	No	No	carvediolo	Furosemide	No	No	No	No	No	Yes	4	Rosuvastatin	No
23	No	Yes	Yes	No	metoprolol	Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	Yes
24	No	Yes	Yes	No	carvediolo	Dytor	No	Yes	No	No	No	No	Both	Atorvastatin	No
25	Yes	Yes	Yes	No	bisoprolol	Dytor	No	No	No	No	No	Yes	Aspirin	Atorvastatin	No
26	No	No	No	No	carvediolo		No	No	No	No	No	No	Both	Others	No
27	Yes	Yes	No	Yes		Dytor	No	No	No	No	No	Yes	Aspirin	Atorvastatin	No
28															
29	No	No	No	No			No	No	No	No	No	No	4	Others	No
30	Yes	Yes	Yes	No		Dytor	No	No	No	No	No	No	Both	Atorvastatin	No
31															
32	No	Yes	No	No	carvediolo	Furosemide	No	No	No	No	No	No	Clopidogrel	Atorvastatin	No
33	Yes	Yes	No	No		Dytor	No	No	No	No	No	No	4	Others	No
34	No	No	No	No	metoprolol		Yes	Yes	No	No	No	Yes	Aspirin	Atorvastatin	No
35	No	Yes	No	No		Furosemide	No	No	No	No	No	No	Aspirin	Others	No
36	No	No	No	No			Yes	No	No	No	No	No	4	Atorvastatin	No
37	No	Yes	No	No	metoprolol	Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	Yes
38	No	Yes	Yes	No	carvediolo	Dytor	No	No	No	No	No	No	Both	Atorvastatin	No
39	No	Yes	No	No	bisoprolol	Dytor	No	No	No	No	No	No	Aspirin	Atorvastatin	No
40															
41	No	Yes	No	Yes		Furosemide	No	No	No	No	No	No	Both	Atorvastatin	No
42	Yes	No	No	No	carvediolo		No	No	No	No	No	Yes	Both	Atorvastatin	No
43	Yes	Yes	Yes	No	bisoprolol	Furosemide	No	No	No	No	No	Yes	Both	Atorvastatin	No
44	No	Yes	Yes	No	others	Furosemide	No	No	No	No	No	No	Both	Atorvastatin	No
45	Yes	Yes	No	Yes	metoprolol	Dytor	No	No	No	No	No	No	Aspirin	Atorvastatin	No
46	Yes	Yes	Yes	No	bisoprolol	Dytor	No	Yes	No	No	No	No	Both	Atorvastatin	No
47	No	Yes	No	Yes		Others	No	No	No	No	No	No	Aspirin	Atorvastatin	No
48															
49	No	No	No	Yes			Yes	No	No	No	No	No	4	Atorvastatin	No
50	No	Yes	No	No	carvediolo	Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	Yes
51	No	Yes	No	No	others	Furosemide	No	No	No	No	No	No	4	Others	No
52	No	Yes	No	No	metoprolol	Furosemide	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No
53	No	No	No	No			No	No	No	No	No	No	4	Others	No
54															
55	No	No	No	No			No	No	No	No	No	No	4	Others	No
56	Yes	Yes	Yes	No	metoprolol	Furosemide	No	No	No	No	No	Yes	Both	Others	No
57	No	No	No	No			No	No	No	No	No	No	4	Others	No
58															
59	No	Yes	No	No	metoprolol	Furosemide	No	No	No	No	No	No	Both	Atorvastatin	No
60	No	Yes	No	No		Furosemide	No	No	No	No	No	No	4	Others	No
61	No	No	No	No			No	No	No	No	No	No	4	Others	No
62															
63															
64															
65	Yes	No	Yes	No	metoprolol		No	No	No	No	No	Yes	Aspirin	Atorvastatin	No
66	No	Yes	No	No		Dytor	No	No	No	No	No	No	4	Others	No
67	Yes	Yes	Yes	No	bisoprolol	Furosemide	No	No	No	No	No	No	Both	Atorvastatin	No
68	No	Yes	No	No	metoprolol	Furosemide	Yes	No	No	No	No	No	Both	Atorvastatin	No
69	No	No	No	No	metoprolol		No	No	No	No	No	Yes	4	Others	No
70	Yes	No	No	Yes	metoprolol		No	No	No	No	No	No	Aspirin	Atorvastatin	No
71	No	Yes	No	No		Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	No
72	Yes	Yes	Yes	No	carvediolo	Dytor	No	No	No	No	No	No	Both	Atorvastatin	No
73	No	No	No	No	metoprolol		No	No	No	No	No	No	Both	Atorvastatin	No
74															
75	No	Yes	No	No	metoprolol	Furosemide	No	No	No	No	No	No	4	Others	No
76	No	No	No	No			Yes	Yes	No	No	No	No	Aspirin	Others	No
77	No	Yes	No	No		Furosemide	No	No	No	No	No	No	4	Others	No
78	No	Yes	No	No	carvediolo	Dytor	No	No	No	No	No	No	4	Others	No
79															
80	Yes	Yes	Yes	No	metoprolol	Furosemide	No	No	No	No	No	Yes	Both	Atorvastatin	No
81	No	Yes	No	No		Furosemide	No	No	No	No	No	No	4	Others	No
82	No	Yes	Yes	No	metoprolol	Furosemide	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No
83	No	No	No	No			No	No	No	No	No	No	4	Others	Yes

data

	IT	IU	IV	IW	IX	IY	IZ	JA	JB	JC	JD	JE	JF	JG	JH
1	HOSPDEAT	MLHFQDIS	DEATH1M	MLHFQ1M	CATEGOR1	CONTIN1M	DEATH3M	MLHFQ3M	CATEGOR3	CONTIN3M	DEATH6M	MLHFQ6M	CATEGOR6	CONTIN6M	DEATH1Y
2	No	48										46	Inactive	462	
3	No	22										24	Inactive	346	
4	No											69	Inactive	462	
5	No	66										14	Minimally Ac	693	
6	No	82	Cardiac caus												
7	No	77	Cardiac caus												
8	Yes														
9	No	83										78	Inactive	346	
10	Yes														
11	No	52										30	Minimally Ac	693	
12	No	45		38	Inactive	462		42	Inactive	462	Cardiac caus				
13	No	38													
14	No	21										9	Minimally Ac	2772	
15	No	86	Cardiac caus												
16	No	42										48	Minimally Ac	1039	
17	No	21										10	Inactive	480	
18	No	48		42	Inactive	693	Cardiac caus								
19	No	32										44	Inactive	231	
20	No	56									Cardiac caus				
21	No	24										20	Minimally Ac	1386	
22	No	48										33	Minimally Ac	693	
23	No	61										50	HEPA active	4389	
24	No	32										16	HEPA active	8316	
25	No											89	Inactive	458	
26	No	72										85	Inactive	231	
27	No	62										52	Minimally Ac	1386	
28	Yes														
29	No											57	Minimally Ac	1039	Cardiac caus
30	No	52										38	HEPA active	3465	
31	Yes														
32	No											63	Minimally Ac	1732	Cardiac caus
33	No	43										19	HEPA active	8316	
34	No	66							Minimally Ac	2772		43	Minimally Ac	2772	
35	No	72										49	Minimally Ac	693	
36	No											31	Minimally Ac	1386	
37	No	65										41	HEPA active	8316	
38	No	72	Cardiac caus												
39	No	82	Others												
40	Yes														
41	No	82										72	HEPA active	4158	
42	No	62										52	Minimally Ac	2541	
43	No	65										59	Minimally Ac	1039	Cardiac caus
44	No	43										29	Inactive	693	
45	No	80										89	Inactive	345	
46	No	82	Cardiac caus												
47	No	78										70	Minimally Ac	693	
48	Yes														
49	No	49										20	Minimally Ac	693	
50	No	56										32	Minimally Ac	1386	
51	No	52										70	Minimally Ac	1024	
52	No	52										44	Minimally Ac	1386	
53	No	22										11	HEPA active	5544	
54	Yes														
55	No	69	Cardiac caus												
56	No	32										46	Minimally Ac	693	
57	No	68	Cardiac caus												
58	Yes		Cardiac caus												
59	No	46										39	Minimally Ac	693	
60	No	30										14	HEPA active	9240	
61	No	53										68	Minimally Ac	693	Others
62	Yes														
63	Yes														
64	Yes														
65	No	66		52											
66	No	42										36	HEPA active	8316	
67	No	82										72	Minimally Ac	1386	
68	No	12									Cardiac caus				
69	No	25										20	Minimally Ac	1039	
70	No	67									Cardiac caus				
71	No	76	Cardiac caus												Infection
72	No	79		82			Cardiac caus								
73	No	42										55	Minimally Ac	2772	
74	Yes														
75	No	65										55	HEPA active	8316	
76	No	16										10	HEPA active	11550	
77	No	68										78	Minimally Ac	693	
78	No	42										68	Minimally Ac	2772	
79	Yes														
80	No	48						58	Minimally Ac	1386	Cardiac caus				
81	No	66			Minimally Ac	1386		72	Minimally Ac	1386					
82	No	47										52	HEPA active	8316	
83	No	28										15	HEPA active	6930	

data



	JY	JZ	KA	KB	KC	KD	KE	KF	KG	KH	KI	KJ	KK	KL	KM
1	ALIVE1Y_R	SATUSFUP	LASTFUP	Death_date	outcome_de	duration_da	duration_da	outcome_de	HOSPSTAY	ICUSTAY_1	ICUSTAY_2	ICUSTAY_3	ICUSTAY_4	ICUSTAY_5	WARDSTAY
2	1			02-02-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
3	1			1/28/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
4	1			3/26/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
5	1			1/25/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
6	2			2/27/2017	1	31	31	1	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
7	2			3/13/2017	1	28	28	1	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
8	2			03-01-17	1	31	31	1	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
9	1			1/13/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
10	2			3/13/2017	1	28	28	1	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
11	1			2/22/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
12	2			08-05-17	1	181	180	0	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
13	2			03-11-17	1	28	28	1	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
14	1			03-11-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
15	2			04-10-17	1	31	31	1	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
16	1			03-06-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
17	1			03-02-18	0	365	180	0	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	<5 Day	>=5 Days
18	2			06-03-17	1	92	92	1	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
19	1			2/23/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
20	2			8/23/2017	1	181	180	0	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	>=5 Days	>=5 Days
21	1			02-10-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
22	1			2/28/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
23	1			2/24/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
24	1			03-03-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
25	1			2/25/2018	0	365	180	0	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	<5 Day	<5 Days
26	1			04-04-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
27	1			3/26/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
28	2			05-01-17	1	30	30	1	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
29	2			3/31/2018	1	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
30	1			3/30/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
31	2			05-01-17	1	31	31	1	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
32	2			03-10-18	1	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
33	1			3/25/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
34	1			3/24/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
35	1			03-11-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
36	1			03-12-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
37	1			03-10-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
38	2			04-11-17	1	31	31	1	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
39	2			4/14/2017	1	31	31	1	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
40	2			04-12-17	1	31	31	1	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
41	1			03-03-18	0	365	180	0	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	>=5 Days	>=5 Days
42	1			03-10-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
43	2			03-10-18	1	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
44	1			03-03-18	0	365	180	0	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
45	1			3/24/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
46	2			4/23/2017	1	31	31	1	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
47	1			3/13/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
48	2			05-06-17	1	30	30	1	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	>=5 Days	<5 Days
49	1			4/27/2018	0	365	180	0	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	>=5 Days	>=5 Days
50	1			5/16/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
51	1			05-12-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
52	1			04-07-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
53	1			4/13/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
54	2			05-12-17	1	30	30	1	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
55	2			5/23/2017	1	30	30	1	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	<5 Day	>=5 Days
56	1			4/13/2018	0	365	180	0	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	>=5 Days	<5 Days
57	2			5/13/2017	1	30	30	1	>=5 Days	>=1 Days	>=2 Days	>=3 Days	<4 Day	<5 Day	<5 Days
58	2			5/23/2017	1	30	30	1	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
59	1			4/19/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
60	1			4/27/2018	0	365	180	0	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	<5 Day	>=5 Days
61	2			4/17/2018	1	365	180	0	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
62	2			06-08-17	1	31	31	1	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	>=5 Days	<5 Days
63	2			6/20/2017	1	31	31	1	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
64	2			5/13/2017	1	30	30	1	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	>=5 Days	<5 Days
65	2			7/16/2017	1	91	91	1	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
66	1			05-07-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
67	1			06-08-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
68	2			11/27/2017	1	184	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
69	1			5/29/2018	0	365	180	0	>=5 Days	>=1 Days	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
70	2			12/17/2017	1	183	180	0	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	>=5 Days	>=5 Days
71				06-10-17	1	31	31	1	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
72	2			8/20/2017	1	92	92	1	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
73	1			5/16/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
74	2			6/28/2017	1	31	31	1	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
75	1			05-03-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
76	1			05-11-18	0	365	180	0	>=5 Days	>=1 Days	>=2 Days	>=3 Days	<4 Day	<5 Day	>=5 Days
77	1			05-07-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
78	1			05-11-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
79	2			06-06-17	1	31	31	1	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
80	2			11-08-17	1	184	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
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82	1			5/15/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
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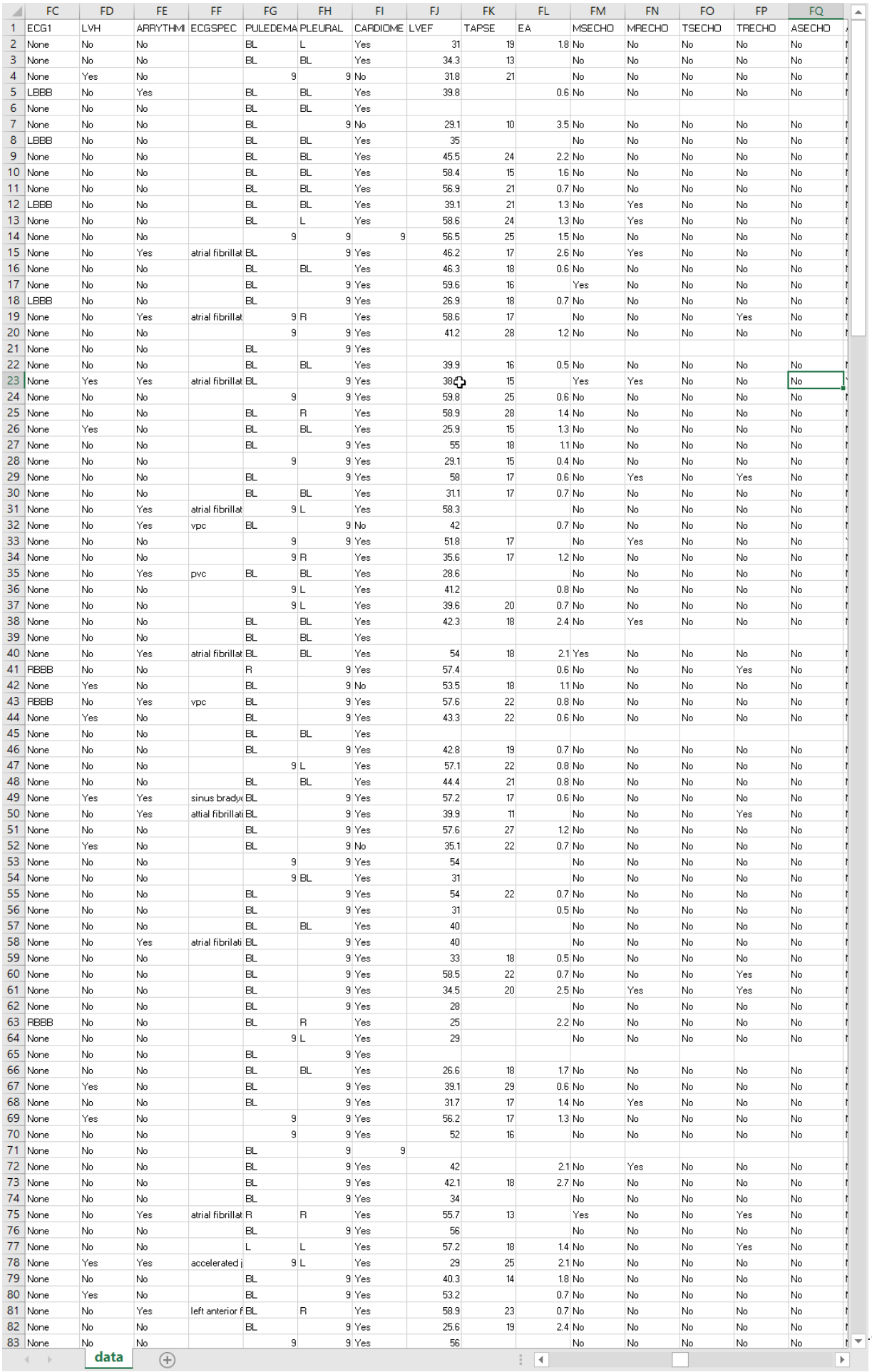

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2	None	No	No		BL	L	Yes	31	19	1.8	No	No	No	No	No
3	None	No	No		BL	BL	Yes	34.3	13		No	No	No	No	No
4	None	Yes	No		9	9	No	31.8	21		No	No	No	No	No
5	LBBB	No	Yes		BL	BL	Yes	39.8		0.6	No	No	No	No	No
6	None	No	No		BL	BL	Yes								
7	None	No	No		BL	9	No	29.1	10	3.5	No	No	No	No	No
8	LBBB	No	No		BL	BL	Yes	35			No	No	No	No	No
9	None	No	No		BL	BL	Yes	45.5	24	2.2	No	No	No	No	No
10	None	No	No		BL	BL	Yes	58.4	15	1.6	No	No	No	No	No
11	None	No	No		BL	BL	Yes	56.9	21	0.7	No	No	No	No	No
12	LBBB	No	No		BL	BL	Yes	39.1	21	1.3	No	Yes	No	No	No
13	None	No	No		BL	L	Yes	58.6	24	1.3	No	Yes	No	No	No
14	None	No	No		9	9	9	56.5	25	1.5	No	No	No	No	No
15	None	No	Yes	atrial fibrillat	BL	9	Yes	46.2	17	2.6	No	Yes	No	No	No
16	None	No	No		BL	BL	Yes	46.3	18	0.6	No	No	No	No	No
17	None	No	No		BL	9	Yes	59.6	16		Yes	No	No	No	No
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19	None	No	Yes	atrial fibrillat	9	R	Yes	58.6	17		No	No	No	Yes	No
20	None	No	No		9	9	Yes	41.2	28	1.2	No	No	No	No	No
21	None	No	No		BL	9	Yes								
22	None	No	No		BL	BL	Yes	39.9	16	0.5	No	No	No	No	No
23	None	Yes	Yes	atrial fibrillat	BL	9	Yes	38	15		Yes	Yes	No	No	No
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26	None	Yes	No		BL	BL	Yes	25.9	15	1.3	No	No	No	No	No
27	None	No	No		BL	9	Yes	55	18	1.1	No	No	No	No	No
28	None	No	No		9	9	Yes	29.1	15	0.4	No	No	No	No	No
29	None	No	No		BL	9	Yes	58	17	0.6	No	Yes	No	Yes	No
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31	None	No	Yes	atrial fibrillat	9	L	Yes	58.3			No	No	No	No	No
32	None	No	Yes	vpc	BL	9	No	42		0.7	No	No	No	No	No
33	None	No	No		9	9	Yes	51.8	17		No	Yes	No	No	No
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35	None	No	Yes	pvc	BL	BL	Yes	28.6			No	No	No	No	No
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37	None	No	No		9	L	Yes	39.6	20	0.7	No	No	No	No	No
38	None	No	No		BL	BL	Yes	42.3	18	2.4	No	Yes	No	No	No
39	None	No	No		BL	BL	Yes								
40	None	No	Yes	atrial fibrillat	BL	BL	Yes	54	18	2.1	Yes	No	No	No	No
41	RBBB	No	No		R	9	Yes	57.4		0.6	No	No	No	Yes	No
42	None	Yes	No		BL	9	No	53.5	18	1.1	No	No	No	No	No
43	RBBB	No	Yes	vpc	BL	9	Yes	57.6	22	0.8	No	No	No	No	No
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48	None	No	No		BL	BL	Yes	44.4	21	0.8	No	No	No	No	No
49	None	Yes	Yes	sinus brady(	BL	9	Yes	57.2	17	0.6	No	No	No	No	No
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51	None	No	No		BL	9	Yes	57.6	27	1.2	No	No	No	No	No
52	None	Yes	No		BL	9	No	35.1	22	0.7	No	No	No	No	No
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55	None	No	No		BL	9	Yes	54	22	0.7	No	No	No	No	No
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57	None	No	No		BL	BL	Yes	40			No	No	No	No	No
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62	None	No	No		BL	9	Yes	28			No	No	No	No	No
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74	None	No	No		BL	9	Yes	34			No	No	No	No	No
75	None	No	Yes	atrial fibrillat	R	R	Yes	55.7	13		Yes	No	No	Yes	No
76	None	No	No		BL	9	Yes	56			No	No	No	No	No
77	None	No	No		L	L	Yes	57.2	18	1.4	No	No	No	Yes	No
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79	None	No	No		BL	9	Yes	40.3	14	1.8	No	No	No	No	No
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82	None	No	No		BL	9	Yes	25.6	19	2.4	No	No	No	No	No
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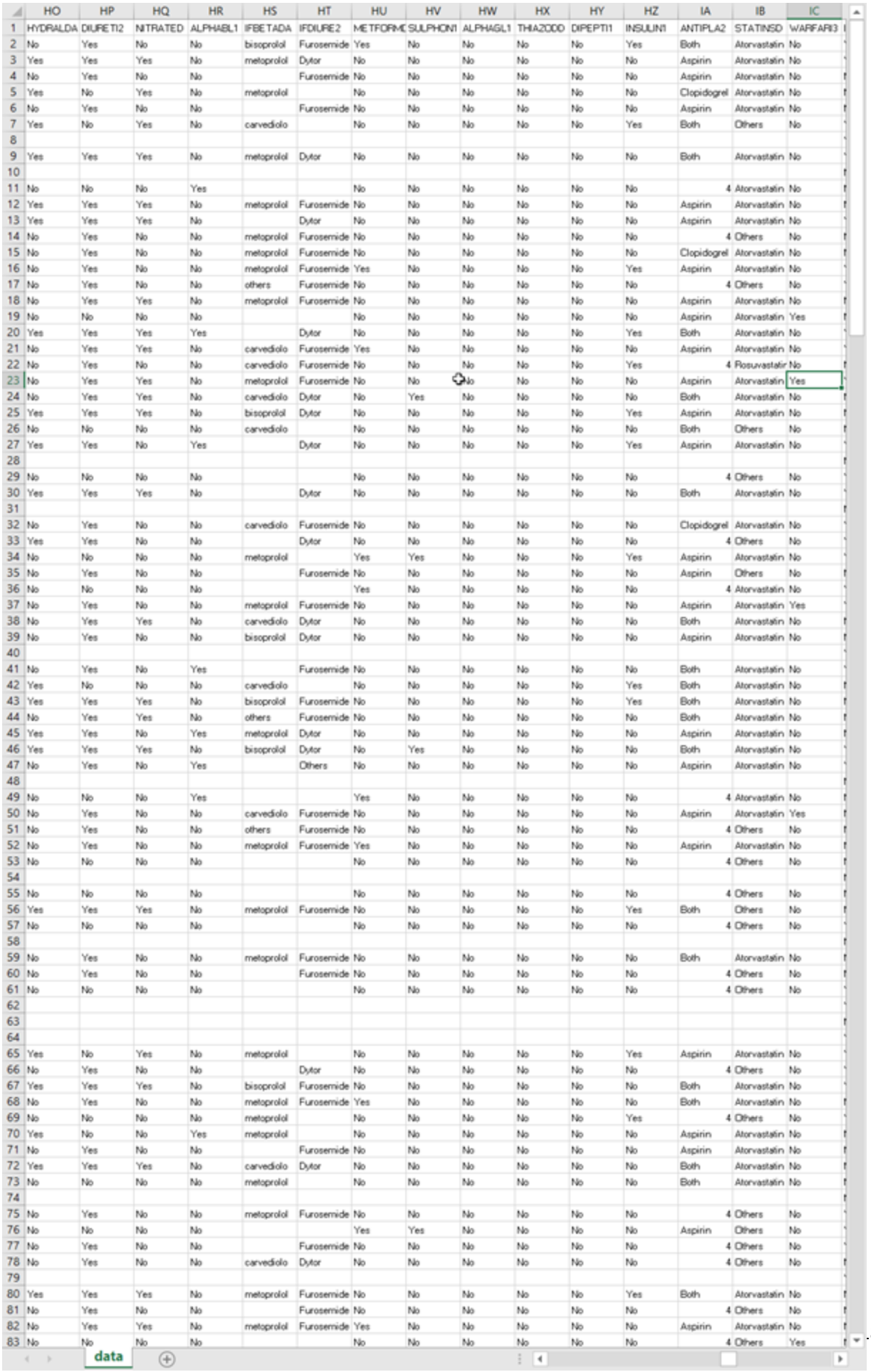

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2	No	Yes	No	No	bisoprolol	Furosemide	Yes	No	No	No	No	Yes	Both	Atorvastatin	No
3	Yes	Yes	Yes	No	metoprolol	Dytor	No	No	No	No	No	No	Aspirin	Atorvastatin	No
4	No	Yes	No	No		Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	No
5	Yes	No	Yes	No	metoprolol		No	No	No	No	No	No	Clopidogrel	Atorvastatin	No
6	No	Yes	No	No		Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	No
7	Yes	No	Yes	No	carvediolo		No	No	No	No	No	Yes	Both	Others	No
8															
9	Yes	Yes	Yes	No	metoprolol	Dytor	No	No	No	No	No	No	Both	Atorvastatin	No
10															
11	No	No	No	Yes			No	No	No	No	No	No	4	Atorvastatin	No
12	Yes	Yes	Yes	No	metoprolol	Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	No
13	Yes	Yes	Yes	No		Dytor	No	No	No	No	No	No	Aspirin	Atorvastatin	No
14	No	Yes	No	No	metoprolol	Furosemide	No	No	No	No	No	No	4	Others	No
15	No	Yes	No	No	metoprolol	Furosemide	No	No	No	No	No	No	Clopidogrel	Atorvastatin	No
16	No	Yes	No	No	metoprolol	Furosemide	Yes	No	No	No	No	Yes	Aspirin	Atorvastatin	No
17	No	Yes	No	No	others	Furosemide	No	No	No	No	No	No	4	Others	No
18	No	Yes	Yes	No	metoprolol	Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	No
19	No	No	No	No			No	No	No	No	No	No	Aspirin	Atorvastatin	Yes
20	Yes	Yes	Yes	Yes		Dytor	No	No	No	No	No	Yes	Both	Atorvastatin	No
21	No	Yes	Yes	No	carvediolo	Furosemide	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No
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23	No	Yes	Yes	No	metoprolol	Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	Yes
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25	Yes	Yes	Yes	No	bisoprolol	Dytor	No	No	No	No	No	Yes	Aspirin	Atorvastatin	No
26	No	No	No	No	carvediolo		No	No	No	No	No	No	Both	Others	No
27	Yes	Yes	No	Yes		Dytor	No	No	No	No	No	Yes	Aspirin	Atorvastatin	No
28															
29	No	No	No	No			No	No	No	No	No	No	4	Others	No
30	Yes	Yes	Yes	No		Dytor	No	No	No	No	No	No	Both	Atorvastatin	No
31															
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36	No	No	No	No			Yes	No	No	No	No	No	4	Atorvastatin	No
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38	No	Yes	Yes	No	carvediolo	Dytor	No	No	No	No	No	No	Both	Atorvastatin	No
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40															
41	No	Yes	No	Yes		Furosemide	No	No	No	No	No	No	Both	Atorvastatin	No
42	Yes	No	No	No	carvediolo		No	No	No	No	No	Yes	Both	Atorvastatin	No
43	Yes	Yes	Yes	No	bisoprolol	Furosemide	No	No	No	No	No	Yes	Both	Atorvastatin	No
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45	Yes	Yes	No	Yes	metoprolol	Dytor	No	No	No	No	No	No	Aspirin	Atorvastatin	No
46	Yes	Yes	Yes	No	bisoprolol	Dytor	No	Yes	No	No	No	No	Both	Atorvastatin	No
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54															
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62															
63															
64															
65	Yes	No	Yes	No	metoprolol		No	No	No	No	No	Yes	Aspirin	Atorvastatin	No
66	No	Yes	No	No		Dytor	No	No	No	No	No	No	4	Others	No
67	Yes	Yes	Yes	No	bisoprolol	Furosemide	No	No	No	No	No	No	Both	Atorvastatin	No
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70	Yes	No	No	Yes	metoprolol		No	No	No	No	No	No	Aspirin	Atorvastatin	No
71	No	Yes	No	No		Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	No
72	Yes	Yes	Yes	No	carvediolo	Dytor	No	No	No	No	No	No	Both	Atorvastatin	No
73	No	No	No	No	metoprolol		No	No	No	No	No	No	Both	Atorvastatin	No
74															
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76	No	No	No	No			Yes	Yes	No	No	No	No	Aspirin	Others	No
77	No	Yes	No	No		Furosemide	No	No	No	No	No	No	4	Others	No
78	No	Yes	No	No	carvediolo	Dytor	No	No	No	No	No	No	4	Others	No
79															
80	Yes	Yes	Yes	No	metoprolol	Furosemide	No	No	No	No	No	Yes	Both	Atorvastatin	No
81	No	Yes	No	No		Furosemide	No	No	No	No	No	No	4	Others	No
82	No	Yes	Yes	No	metoprolol	Furosemide	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No
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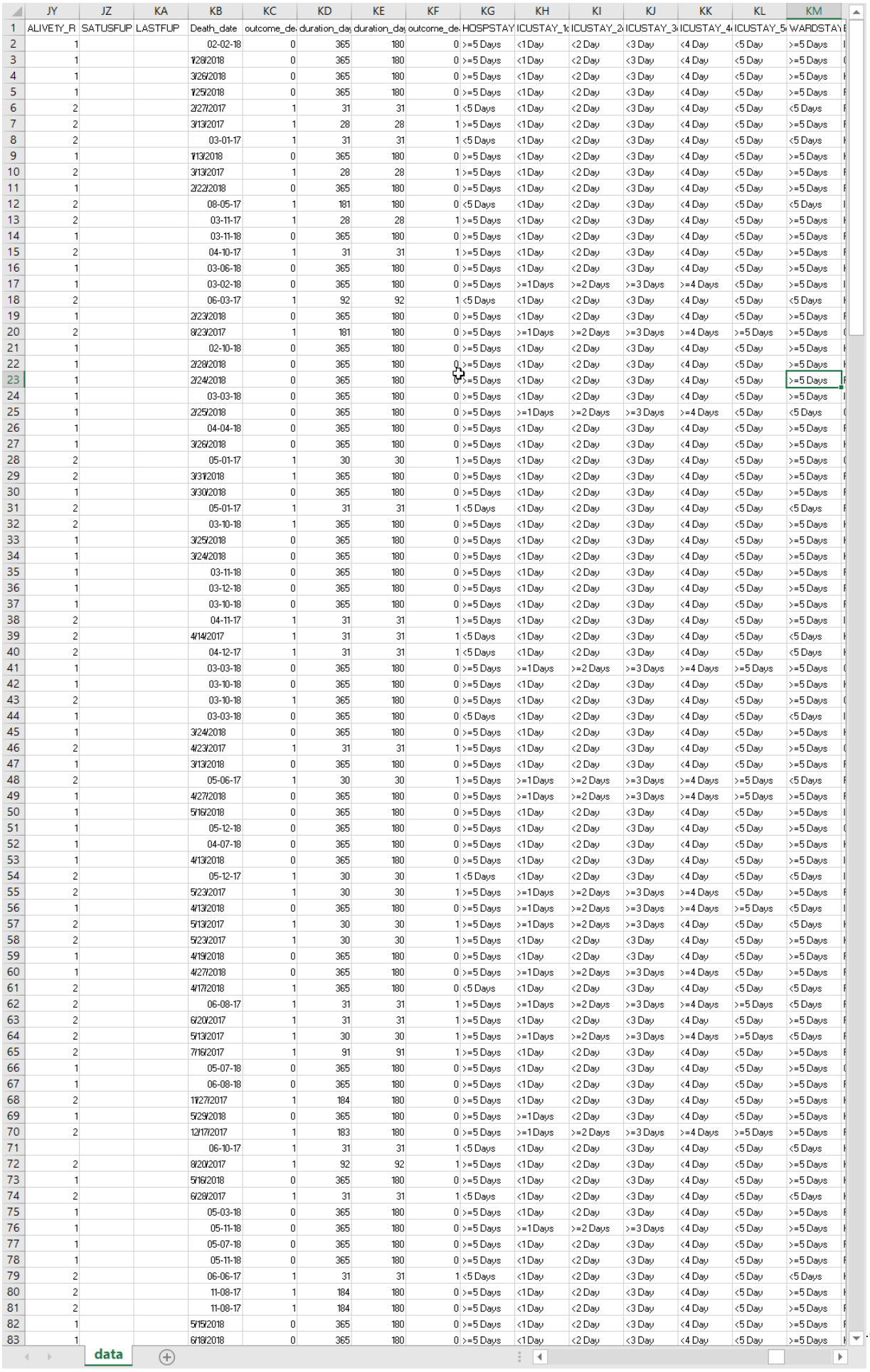

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7	2			3/13/2017	1	28	28	1	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
8	2			03-01-17	1	31	31	1	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
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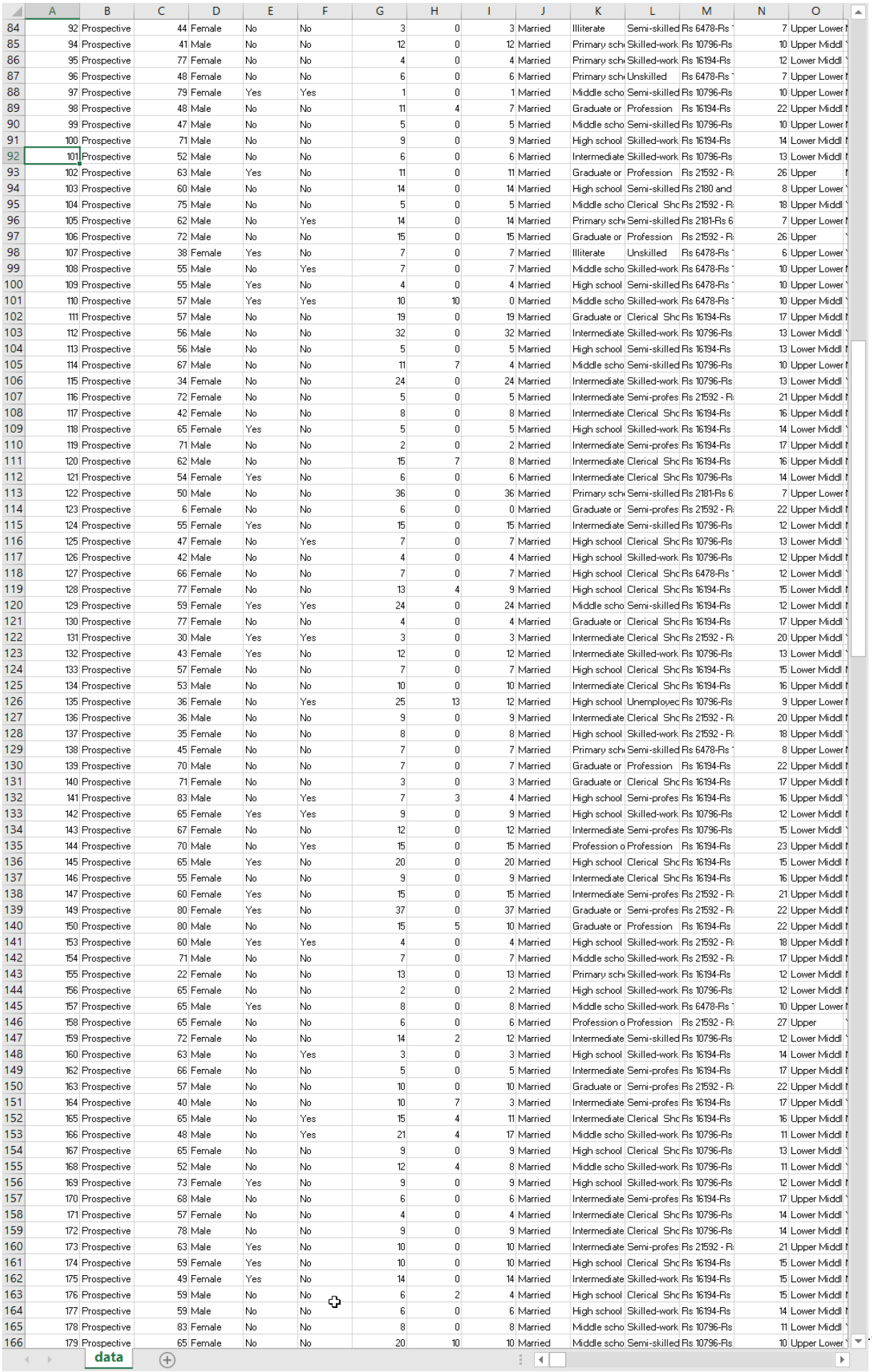
33	1			3/25/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
34	1			3/24/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
35	1			03-11-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
36	1			03-12-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
37	1			03-10-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
38	2			04-11-17	1	31	31	1	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
39	2			4/14/2017	1	31	31	1	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
40	2			04-12-17	1	31	31	1	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
41	1			03-03-18	0	365	180	0	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	>=5 Days	>=5 Days
42	1			03-10-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
43	2			03-10-18	1	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
44	1			03-03-18	0	365	180	0	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
45	1			3/24/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
46	2			4/23/2017	1	31	31	1	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
47	1			3/13/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
48	2			05-06-17	1	30	30	1	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	>=5 Days	<5 Days
49	1			4/27/2018	0	365	180	0	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	>=5 Days	>=5 Days
50	1			5/16/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
51	1			05-12-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
52	1			04-07-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
53	1			4/13/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
54	2			05-12-17	1	30	30	1	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
55	2			5/23/2017	1	30	30	1	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	<5 Day	>=5 Days
56	1			4/13/2018	0	365	180	0	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	>=5 Days	<5 Days
57	2			5/13/2017	1	30	30	1	>=5 Days	>=1 Days	>=2 Days	>=3 Days	<4 Day	<5 Day	<5 Days
58	2			5/23/2017	1	30	30	1	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
59	1			4/19/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
60	1			4/27/2018	0	365	180	0	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	<5 Day	>=5 Days
61	2			4/17/2018	1	365	180	0	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
62	2			06-08-17	1	31	31	1	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	>=5 Days	<5 Days
63	2			6/20/2017	1	31	31	1	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
64	2			5/13/2017	1	30	30	1	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	>=5 Days	<5 Days
65	2			7/16/2017	1	91	91	1	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
66	1			05-07-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
67	1			06-08-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
68	2			11/27/2017	1	184	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
69	1			5/29/2018	0	365	180	0	>=5 Days	>=1 Days	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
70	2			12/17/2017	1	183	180	0	>=5 Days	>=1 Days	>=2 Days	>=3 Days	>=4 Days	>=5 Days	>=5 Days
71				06-10-17	1	31	31	1	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
72	2			8/20/2017	1	92	92	1	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
73	1			5/16/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
74	2			6/28/2017	1	31	31	1	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
75	1			05-03-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
76	1			05-11-18	0	365	180	0	>=5 Days	>=1 Days	>=2 Days	>=3 Days	<4 Day	<5 Day	>=5 Days
77	1			05-07-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
78	1			05-11-18	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
79	2			06-06-17	1	31	31	1	<5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	<5 Days
80	2			11-08-17	1	184	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
81	2			11-08-17	1	184	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
82	1			5/15/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days
83	1			6/18/2018	0	365	180	0	>=5 Days	<1 Day	<2 Day	<3 Day	<4 Day	<5 Day	>=5 Days

data



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
84	92	Prospective	44	Female	No	No	3	0	3	Married	Illiterate	Semi-skilled	Rs 6478-Rs	7	Upper Lower
85	94	Prospective	41	Male	No	No	12	0	12	Married	Primary sch	Skilled-work	Rs 10796-Rs	10	Upper Middl
86	95	Prospective	77	Female	No	No	4	0	4	Married	Primary sch	Skilled-work	Rs 16194-Rs	12	Lower Middl
87	96	Prospective	48	Female	No	No	6	0	6	Married	Primary sch	Unskilled	Rs 6478-Rs	7	Upper Lower
88	97	Prospective	79	Female	Yes	Yes	1	0	1	Married	Middle scho	Semi-skilled	Rs 10796-Rs	10	Upper Lower
89	98	Prospective	48	Male	No	No	11	4	7	Married	Graduate or	Profession	Rs 16194-Rs	22	Upper Middl
90	99	Prospective	47	Male	No	No	5	0	5	Married	Middle scho	Semi-skilled	Rs 10796-Rs	10	Upper Lower
91	100	Prospective	71	Male	No	No	9	0	9	Married	High school	Skilled-work	Rs 16194-Rs	14	Lower Middl
92	101	Prospective	52	Male	No	No	6	0	6	Married	Intermediate	Skilled-work	Rs 10796-Rs	13	Lower Middl
93	102	Prospective	63	Male	Yes	No	11	0	11	Married	Graduate or	Profession	Rs 21592 - R	26	Upper
94	103	Prospective	60	Male	No	No	14	0	14	Married	High school	Semi-skilled	Rs 2180 and	8	Upper Lower
95	104	Prospective	75	Male	No	No	5	0	5	Married	Middle scho	Clerical Sho	Rs 21592 - R	18	Upper Middl
96	105	Prospective	62	Male	No	Yes	14	0	14	Married	Primary sch	Semi-skilled	Rs 2181-Rs 6	7	Upper Lower
97	106	Prospective	72	Male	No	No	15	0	15	Married	Graduate or	Profession	Rs 21592 - R	26	Upper
98	107	Prospective	38	Female	Yes	No	7	0	7	Married	Illiterate	Unskilled	Rs 6478-Rs	6	Upper Lower
99	108	Prospective	55	Male	No	Yes	7	0	7	Married	Middle scho	Skilled-work	Rs 6478-Rs	10	Upper Lower
100	109	Prospective	55	Male	Yes	No	4	0	4	Married	High school	Semi-skilled	Rs 6478-Rs	10	Upper Lower
101	110	Prospective	57	Male	Yes	Yes	10	10	0	Married	Middle scho	Skilled-work	Rs 6478-Rs	10	Upper Middl
102	111	Prospective	57	Male	No	No	19	0	19	Married	Graduate or	Clerical Sho	Rs 16194-Rs	17	Upper Middl
103	112	Prospective	56	Male	No	No	32	0	32	Married	Intermediate	Skilled-work	Rs 10796-Rs	13	Lower Middl
104	113	Prospective	56	Male	No	No	5	0	5	Married	High school	Semi-skilled	Rs 16194-Rs	13	Lower Middl
105	114	Prospective	67	Male	No	No	11	7	4	Married	Middle scho	Semi-skilled	Rs 10796-Rs	10	Upper Lower
106	115	Prospective	34	Female	No	No	24	0	24	Married	Intermediate	Skilled-work	Rs 10796-Rs	13	Lower Middl
107	116	Prospective	72	Female	No	No	5	0	5	Married	Intermediate	Semi-profes	Rs 21592 - R	21	Upper Middl
108	117	Prospective	42	Female	No	No	8	0	8	Married	Intermediate	Clerical Sho	Rs 16194-Rs	16	Upper Middl
109	118	Prospective	65	Female	Yes	No	5	0	5	Married	High school	Skilled-work	Rs 16194-Rs	14	Lower Middl
110	119	Prospective	71	Male	No	No	2	0	2	Married	Intermediate	Semi-profes	Rs 16194-Rs	17	Upper Middl
111	120	Prospective	62	Male	No	No	15	7	8	Married	Intermediate	Clerical Sho	Rs 16194-Rs	16	Upper Middl
112	121	Prospective	54	Female	Yes	No	6	0	6	Married	Intermediate	Clerical Sho	Rs 10796-Rs	14	Lower Middl
113	122	Prospective	50	Male	No	No	36	0	36	Married	Primary sch	Semi-skilled	Rs 2181-Rs 6	7	Upper Lower
114	123	Prospective	6	Female	No	No	6	0	0	Married	Graduate or	Semi-profes	Rs 21592 - R	22	Upper Middl
115	124	Prospective	55	Female	Yes	No	15	0	15	Married	Intermediate	Semi-skilled	Rs 10796-Rs	12	Lower Middl
116	125	Prospective	47	Female	No	Yes	7	0	7	Married	High school	Clerical Sho	Rs 10796-Rs	13	Lower Middl
117	126	Prospective	42	Male	No	No	4	0	4	Married	High school	Skilled-work	Rs 10796-Rs	12	Upper Middl
118	127	Prospective	66	Female	No	No	7	0	7	Married	High school	Clerical Sho	Rs 6478-Rs	12	Lower Middl
119	128	Prospective	77	Female	No	No	13	4	9	Married	High school	Clerical Sho	Rs 16194-Rs	15	Lower Middl
120	129	Prospective	59	Female	Yes	Yes	24	0	24	Married	Middle scho	Semi-skilled	Rs 16194-Rs	12	Lower Middl
121	130	Prospective	77	Female	No	No	4	0	4	Married	Graduate or	Clerical Sho	Rs 16194-Rs	17	Upper Middl
122	131	Prospective	30	Male	Yes	Yes	3	0	3	Married	Intermediate	Clerical Sho	Rs 21592 - R	20	Upper Middl
123	132	Prospective	43	Female	Yes	No	12	0	12	Married	Intermediate	Skilled-work	Rs 10796-Rs	13	Lower Middl
124	133	Prospective	57	Female	No	No	7	0	7	Married	High school	Clerical Sho	Rs 16194-Rs	15	Lower Middl
125	134	Prospective	53	Male	No	No	10	0	10	Married	Intermediate	Clerical Sho	Rs 16194-Rs	16	Upper Middl
126	135	Prospective	36	Female	No	Yes	25	13	12	Married	High school	Unemployec	Rs 10796-Rs	9	Upper Lower
127	136	Prospective	36	Male	No	No	9	0	9	Married	Intermediate	Clerical Sho	Rs 21592 - R	20	Upper Middl
128	137	Prospective	35	Female	No	No	8	0	8	Married	High school	Skilled-work	Rs 21592 - R	18	Upper Middl
129	138	Prospective	45	Female	No	No	7	0	7	Married	Primary sch	Semi-skilled	Rs 6478-Rs	8	Upper Lower
130	139	Prospective	70	Male	No	No	7	0	7	Married	Graduate or	Profession	Rs 16194-Rs	22	Upper Middl
131	140	Prospective	71	Female	No	No	3	0	3	Married	Graduate or	Clerical Sho	Rs 16194-Rs	17	Upper Middl
132	141	Prospective	83	Male	No	Yes	7	3	4	Married	High school	Semi-profes	Rs 16194-Rs	16	Upper Middl
133	142	Prospective	65	Female	Yes	Yes	9	0	9	Married	High school	Skilled-work	Rs 10796-Rs	12	Lower Middl
134	143	Prospective	67	Female	No	No	12	0	12	Married	Intermediate	Semi-profes	Rs 10796-Rs	15	Lower Middl
135	144	Prospective	70	Male	No	Yes	15	0	15	Married	Profession o	Profession	Rs 16194-Rs	23	Upper Middl
136	145	Prospective	65	Male	Yes	No	20	0	20	Married	High school	Clerical Sho	Rs 16194-Rs	15	Lower Middl
137	146	Prospective	55	Female	No	No	9	0	9	Married	Intermediate	Clerical Sho	Rs 16194-Rs	16	Upper Middl
138	147	Prospective	60	Female	Yes	No	15	0	15	Married	Intermediate	Semi-profes	Rs 21592 - R	21	Upper Middl
139	149	Prospective	80	Female	Yes	No	37	0	37	Married	Graduate or	Semi-profes	Rs 21592 - R	22	Upper Middl
140	150	Prospective	80	Male	No	No	15	5	10	Married	Graduate or	Profession	Rs 16194-Rs	22	Upper Middl
141	153	Prospective	60	Male	Yes	Yes	4	0	4	Married	High school	Skilled-work	Rs 21592 - R	18	Upper Middl
142	154	Prospective	71	Male	No	No	7	0	7	Married	Middle scho	Skilled-work	Rs 21592 - R	17	Upper Middl
143	155	Prospective	22	Female	No	No	13	0	13	Married	Primary sch	Skilled-work	Rs 16194-Rs	12	Lower Middl
144	156	Prospective	65	Female	No	No	2	0	2	Married	High school	Skilled-work	Rs 10796-Rs	12	Lower Middl
145	157	Prospective	65	Male	Yes	No	8	0	8	Married	Middle scho	Skilled-work	Rs 6478-Rs	10	Upper Lower
146	158	Prospective	65	Female	No	No	6	0	6	Married	Profession o	Profession	Rs 21592 - R	27	Upper
147	159	Prospective	72	Female	No	No	14	2	12	Married	Intermediate	Semi-skilled	Rs 10796-Rs	12	Lower Middl
148	160	Prospective	63	Male	No	Yes	3	0	3	Married	High school	Skilled-work	Rs 16194-Rs	14	Lower Middl
149	162	Prospective	66	Female	No	No	5	0	5	Married	Intermediate	Semi-profes	Rs 16194-Rs	17	Upper Middl
150	163	Prospective	57	Male	No	No	10	0	10	Married	Graduate or	Semi-profes	Rs 21592 - R	22	Upper Middl
151	164	Prospective	40	Male	No	No	10	7	3	Married	Intermediate	Semi-profes	Rs 16194-Rs	17	Upper Middl
152	165	Prospective	65	Male	No	Yes	15	4	11	Married	Intermediate	Clerical Sho	Rs 16194-Rs	16	Upper Middl
153	166	Prospective	48	Male	No	Yes	21	4	17	Married	Middle scho	Skilled-work	Rs 10796-Rs	11	Lower Middl
154	167	Prospective	65	Female	No	No	9	0	9	Married	High school	Clerical Sho	Rs 10796-Rs	13	Lower Middl
155	168	Prospective	52	Male	No	No	12	4	8	Married	Middle scho	Skilled-work	Rs 10796-Rs	11	Lower Middl
156	169	Prospective	73	Female	Yes	No	9	0	9	Married	High school	Skilled-work	Rs 10796-Rs	12	Lower Middl
157	170	Prospective	68	Male	No	No	6	0	6	Married	Intermediate	Semi-profes	Rs 16194-Rs	17	Upper Middl
158	171	Prospective	57	Female	No	No	4	0	4	Married	Intermediate	Clerical Sho	Rs 10796-Rs	14	Lower Middl
159	172	Prospective	78	Male	No	No	9	0	9	Married	Intermediate	Clerical Sho	Rs 10796-Rs	14	Lower Middl
160	173	Prospective	63	Male	Yes	No	10	0	10	Married	Intermediate	Semi-profes	Rs 21592 - R	21	Upper Middl
161	174	Prospective	59	Female	Yes	No	10	0	10	Married	High school	Clerical Sho	Rs 16194-Rs	15	Lower Middl
162	175	Prospective	49	Female	Yes	No	14	0	14	Married	Intermediate	Skilled-work	Rs 16194-Rs	15	Lower Middl
163	176	Prospective	59	Male	No	No	6	2	4	Married	High school	Clerical Sho	Rs 16194-Rs	15	Lower Middl
164	177	Prospective	59	Male	No	No	6	0	6	Married	High school	Skilled-work	Rs 16194-Rs	14	Lower Middl
165	178	Prospective	83	Female	No	No	8	0	8	Married	Middle scho	Skilled-work	Rs 10796-Rs	11	Lower Middl
166	179	Prospective	65	Female	No	No	20	10	10	Married	Middle scho	Semi-skilled	Rs 10796-Rs	10	Upper Lower

	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD
84	No			Yes	90	4	No		Yes	7	No		No		Yes
85	Yes	7	4	No			Yes	7	No		No		Yes	7	Yes
86	Yes	14	3	Yes	14	3	No		Yes	14	No		No		Yes
87	No			Yes	13	3	Yes	13	Yes	15	No		No		Yes
88	No			Yes	1	4	Yes	1	No		No		No		Yes
89	No			Yes	7	4	Yes	4	Yes	5	Yes	1	No		No
90	No			Yes	2	4	Yes	2	No		No		No		Yes
91	No			Yes	1	4	No		Yes	7	No		No		No
92	No			Yes	3	4	Yes	14	Yes	3	No		No		Yes
93	No			No			No		No		No		No		No
94	Yes	4	4	No			No		No		Yes	4	No		No
95	Yes	3	4	Yes	3	4	No		Yes	7	No		No		No
96	No			Yes	3	4	Yes	4	No		No		No		Yes
97	Yes	1	4	Yes	180	3	Yes	1	No		Yes	1	No		Yes
98	Yes	7	4	Yes	3	4	Yes	7	Yes	3	No		No		Yes
99	No			Yes	1	4	No		No		No		No		Yes
100	Yes	30	3	Yes	30	4	Yes	30	No		Yes	1	No		Yes
101	Yes	1	4	No			Yes	3	No		No		No		No
102	No			Yes	90	4	Yes	650	Yes	365	Yes	60	No		Yes
103	Yes	7	4	Yes	4	4	Yes	7	Yes	7	Yes	15	No		Yes
104	No			Yes	2	4	No		No		Yes	2	No		Yes
105	No			Yes	2	4	No		No		No		No		Yes
106	Yes	1	4	Yes	2	4	Yes	2	Yes	60	Yes	2	No		Yes
107	No			Yes	14	4	No		Yes	14	No		No		Yes
108	No			Yes	14	3	No		Yes	14	No		No		Yes
109	Yes	1	4	Yes	1	4	Yes	1	No		Yes	1	No		No
110	No			Yes	10	4	Yes	2	Yes	1	No		No		Yes
111	No			Yes	2	4	No		Yes	1	No		No		Yes
112	No			Yes	1	4	Yes	1	No		No		No		Yes
113	No			No			No		No		No		No		No
114	No			Yes	2	4	No		Yes	7	No		No		Yes
115	No			Yes	1	4	No		No		Yes	1	No		Yes
116	Yes	90	3	Yes	120	4	Yes	120	Yes	20	No		No		Yes
117	No			Yes	90	4	No		Yes	15	No		No		Yes
118	Yes	1	4	Yes	1	4	No		No		Yes	1	No		Yes
119	No			Yes	3	4	No		Yes	3	No		No		Yes
120	No			Yes	14	4	No		Yes	90	Yes	14	No		Yes
121	Yes	30	3	Yes	0	4	Yes	30	Yes	30	No		No		Yes
122	Yes	90	3	Yes	30	4	Yes	90	Yes	90	No		No		Yes
123	Yes	30	4	Yes	30	3	Yes	30	Yes	30	No		No		No
124	No			Yes	12	4	No		Yes	10	No		No		Yes
125	No			Yes	3	4	No		Yes	7	Yes	2	No		Yes
126	No			Yes	15	4	No		No		No		No		Yes
127	No			Yes	20	4	No		No		No		No		Yes
128	Yes	30	3	Yes	90	3	Yes	60	No		No		No		Yes
129	No			Yes	1	4	Yes	1	No		Yes	1	No		No
130	No			Yes	2	4	No		Yes	180	No		No		Yes
131	No			Yes	7	4	No		Yes	7	No		No		Yes
132	Yes	21	4	Yes	21	4	No		Yes	21	No		No		No
133	No			Yes	90	4	No		Yes	90	No		Yes	90	Yes
134	Yes	2	4	Yes	2	4	No		Yes	7	Yes	2	No		Yes
135	No			Yes	1	4	No		No		No		No		Yes
136	No			Yes	2	4	No		No		No		No		Yes
137	No			Yes	14	4	Yes	6	Yes	10	No		No		Yes
138	No			Yes	1	4	No		No		No		No		Yes
139	No			Yes	720	3	No		No		No		No		Yes
140	No			Yes	1	4	No		Yes	30	No		No		Yes
141	No			Yes	3	4	No		No		No		No		No
142	No			Yes	1	4	No		No		No		No		No
143	No			Yes	3	4	Yes	3	Yes	7	Yes	3	No		Yes
144	No			Yes	30	4	No		No		No		No		No
145	No			Yes	120	4	Yes	30	No		Yes	30	No		No
146	Yes	1	4	Yes	1	4	Yes	1	Yes	1	Yes	1	No		Yes
147	Yes		4	Yes	3	4	No		No		No		No		No
148	No			Yes	1	4	No		No		No		No		No
149	No			Yes	3	4	No		No		No		No		Yes
150	No			Yes	180	4	No		No		No		No		No
151	Yes	1	4	Yes	1	4	No		No		No		No		Yes
152	No			Yes	2	3	No		No		No		No		No
153	No			Yes	3	4	No		No		No		No		No
154	Yes	30	4	Yes	30	4	No		No		No		No		No
155	Yes	2	1	No			No		No		No		Yes	1	No
156	No			Yes	4	4	No		No		No		No		No
157	Yes	30	4	Yes	30	4	No		Yes	30	No		No		Yes
158	Yes	7	4	Yes	30	4	No		Yes	180	No		No		Yes
159	No			Yes	4	4	No		No		No		No		Yes
160	No			Yes	1	4	No		No		No		No		No
161	No			Yes	1	4	No		Yes	1	No		No		No
162	No			Yes	1	4	No		No		No		No		No
163	No			Yes	7	4	Yes	7	Yes	30	No		No		Yes
164	No			Yes	5	4	No		No		No		No		No
165	Yes	3	4	Yes	7	4	No		No		No		No		No
166	Yes	5	4	Yes	5	4	No		No		No		No		No

data

	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS
84	7	No		Yes	7	Yes	7	No		500	4	2	C	100	130
85	7	Yes	7	No		Yes	7	No		10	4	2	C	118	100
86	14	No		No		No		No		500	3	2	C	106	150
87	10	No		Yes	10	No		No		50	4	3	C	110	110
88	1	No		Yes	1	Yes	7	Yes	1	50	4		D	116	140
89		No		No		Yes	3	Yes	5	10	4	2	C	116	100
90	2	No		No		No		Yes	2	3000	4	2	C	88	140
91		No		No		No		No		1000	4	2	C	88	130
92	3	No		Yes	3	Yes	3	No		2000	4	3	C	130	106
93		No		Yes	1	No		No		500	4	3	C	130	110
94		No		No		Yes	4	No		5000	4	2	C	96	86
95		No		No		Yes	3	No		50	4	2	C	80	150
96	4	No		Yes	4	No		No		10	4		D	150	120
97	1	No		Yes	1	Yes	180	No		1000	4	3	C	110	140
98	3	No		Yes	3	Yes	7	No		50	4	2	C	174	90
99	3	No		Yes	3	Yes	7	No		15	4		D	120	160
100	30	Yes	30	Yes	30	Yes	30	No		50	4	3	C	98	150
101		No		No		No		No		50	4		D	130	80
102	90	No		Yes	365	Yes	900	No		50	4	3	C	110	140
103	4	No		Yes	14	Yes	14	No		1000	4	3	C	120	120
104	212	Yes	12	No		Yes	2	No		1000	4	3	C	120	90
105	2	No		Yes	2	Yes	2	No		250	4	3	D	88	110
106	2	No		Yes	2	No		Yes	60	100	4	2	C	128	140
107	14	No		Yes	30	No		No		10	4	3	C	88	100
108	14	Yes	14	Yes	14	Yes	14	No		50	4	3	C	76	120
109		No		No		No		No		2000	4	3	C	114	140
110	4	No		Yes	4	No		No		500	4	2	C	126	190
111	2	No		Yes	2	Yes	2	No		200	4	3	C	130	120
112	1	No		Yes	7	Yes	1	No		1000	4	2	C	112	140
113		No		No		No		Yes	1	1000	4	3	C	102	100
114	2	No		Yes	2	No		No		1000	4	2	C	106	200
115	1	No		Yes	1	Yes	1	Yes	1	500	4	3	C	42	0
116	150	No		Yes	180	Yes	150	No		500	4		D	88	100
117	90	No		Yes	90	No		No		30	4	3	C	94	80
118	1	No		Yes	1	No		No		150	4	3	C	60	160
119	3	No		No		Yes	3	No		250	4	2	C	120	160
120	14	No		Yes	14	Yes	5	Yes	3	10	4		D	98	170
121	30	No		Yes	30	No		No		10	4	3	C	82	110
122	90	No		Yes	90	Yes	60	Yes	90	5	4		D	102	90
123		No		Yes	30	No		No		1000	3	2	C	110	90
124	120	No		Yes	120	Yes	5	Yes	7	15	4	2	C	104	110
125	3	No		Yes	3	Yes	2	Yes	1	100	4	2	C	124	110
126	15	No		Yes	15	No		Yes	60	20	4		D	128	100
127	20	No		Yes	20	Yes	20	Yes	2	50	4	2	C	130	140
128	90	Yes	90	Yes	90	No		Yes	30	50	3	2	C	124	100
129		No		No		No		No		4000	4	2	C	98	120
130	30	No		No		Yes	14	No		15	4	2	C	110	250
131	7	No		Yes	90	Yes	7	No		100	4	3	C	118	140
132		No		Yes	21	No		No		50	4		D	112	130
133	90	No		Yes	90	Yes	90	No		10	4		D	76	120
134	2	No		Yes	90	Yes	2	No		10	4	3	C	102	110
135	121	No		Yes	2	No		No		100	4		D	134	90
136	2	No		No		Yes	5	Yes	15	100	4	3	C	122	180
137	7	No		Yes	14	Yes	14	No		10	4	2	C	180	100
138	1	No		Yes	1	No		Yes	2	10	4	2	C	126	80
139	7	No		No		Yes	7	Yes	7	20	4	3	C	90	160
140	1	No		Yes	1	No		No		10	4	2	C	86	100
141		No		No		Yes	3	Yes	1	10	4		D	116	160
142		No		No		Yes	2	Yes	1	15	4	3	C	132	160
143	30	No		Yes	30	Yes	7	Yes	3	15	4	2	C	142	110
144		No		No		No		No		500	4	3	C	98	120
145		No		No		Yes	30	No		2	4	3	C	120	130
146	1	No		No		Yes	1	No		15	4	3	C	96	140
147		No		No		No		No		100	4	3	C	100	140
148		No		Yes	30	Yes	30	No		10	4		D	136	100
149	3	No		Yes	3	No		No		10	4	2	C	32	170
150		No		Yes	180	Yes	180	No		1000	4	2	C	100	120
151	1	No		Yes	1	No		No		500	4	3	C	110	120
152		No		Yes	30	No		Yes	1	500	3		D	92	110
153		No		No		Yes	3	Yes	7	1000	4		D	120	120
154		No		No		No		Yes	3	500	4	2	C	142	200
155		No		No		Yes	2	Yes	2	1000	4	2	C	63	90
156		No		No		Yes	1	Yes	3	250	4	2	C	102	160
157	30	No		No		Yes	3	No		50	4	3	C	92	100
158	7	No		No		No		No		2000	4	3	C	106	120
159	4	No		Yes	4	No		No		100	4	2	C	112	90
160		No		No		No		Yes	3	500	4	2	C	104	70
161		No		Yes	1	No		No		500	4	2	C	187	100
162		No		No		No		Yes	2	5	4	3	C	100	100
163	7	No		Yes	7	Yes	30	No		500	4	2	C	114	140
164		Yes	5	No		Yes	5	Yes	7	1000	4	2	C	106	140
165		No		No		Yes	7	No		1000	4	3	C	88	100
166		No		No		No		No		500	4	2	C	66	60

data

	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH
84	90	32	93	15	No	0	1.02	160	82	32	No	No	No	No	No
85	70	34	91	15	No	0	0.97	165	72	26.2	Yes	No	No	No	No
86	90	38	59	15	No	0		155	48	20	No	No	No	No	No
87	60	32	98	15	No	0	0.97	158	90	18	Yes	No	No	No	No
88	90	34	88	15	No	0		160	56	21.9	No	No	No	No	No
89	60	8	20	3	No	0		164	61	22.7	No	No	No	No	No
90	90	26	88	15	No	0	0.95	167	90	32.3	No	No	No	No	No
91	80	32	90	15	No	0	1.02	178	82	25.9	No	No	No	No	No
92	70	23	95	15	No	0	0.94	157	75	30.4	No	No	No	No	No
93	80	30	99	15	No	0	0.97	177	86	27.5	No	No	No	No	No
94	60	24	96	15	No	0	0.95	173	60	20	No	No	No	No	No
95	80	24	88	15	No	0	0.98	165	62	22.8	No	No	No	No	No
96	80	33	98	15	No	0		175	72	23.5	No	No	No	No	No
97	90	30	85	15	No	0	0.95	172	60	20.3	Yes	No	No	No	No
98	60	38	91	15	No	0	0.97	134	35	19.5	No	No	No	No	No
99	90	40	84	9	No	0		177	65	20.7	No	No	No	No	No
100	90	34	90	15	No	0	0.97	144	34	16.4	No	No	No	No	No
101	50	30	46	15	Yes	9		156	60	24.7	No	No	No	No	No
102	70	36	93	15	No	0	0.97	176	68	22	No	No	No	No	No
103	90	46	86	15	No	0	1.02	177	70	22.3	No	No	No	No	No
104	60	38	82	15	No	0	1.02	180	78	24.1	Yes	No	No	No	No
105	70	36	96	15	Yes	4	0.97	163	60	22.6	No	No	No	No	No
106	90	22	98	15	No	0	0.98	144	38	18.3	Yes	No	No	No	No
107	70	30	89	15	No	0	0.97	170	90	31.1	No	No	No	No	No
108	80	24	92	15	No	0	0.97	137	52	27	Yes	No	No	No	No
109	70	40	75	15	No	0	1.04	165	63	23.1	Yes	No	No	No	No
110	100	48	58	15	No	0	0.97	167	50	17.9	Yes	No	No	No	No
111	80	50	82	15	No	0	0.9	163	60	22.6	Yes	No	No	No	No
112	80	48	60	15	No	0	0.88	152	54	23.4	Yes	No	No	No	No
113	60	22	98	15	No	0	0.91	165	59	21.7	No	No	No	No	No
114	100	38	90	15	No	0	0.94	162	60	22.9	Yes	No	No	No	No
115	0	36	89	15	No	0	0.91	175	70	22.9	No	No	No	No	No
116	68	34	98	15	No	0					Yes	No	No	No	No
117	60	22	98	15	No	0	1.02	160	50	19.5	Yes	No	No	No	No
118	100	24	79	15	No	0	0.95	175	63	20.6	No	No	No	No	No
119	90	40	60	15	No	0	0.96	162	52	19.8	Yes	Yes	No	No	No
120	110	24	95	15	No	0		155	62	25.8	No	No	No	No	No
121	70	34	93	15	No	0	0.96	145	72	34.2	No	No	No	No	No
122	50	28	97	15	No	0		165	80	29.4	Yes	Yes	No	No	No
123	40	26	92	15	No	0	1.07	148	35	16	No	No	No	No	No
124	60	34	89	15	No	0	1.08	162	82	31.2	No	No	No	No	No
125	70	38	95	15	No	0	1.02	172	90	30.4	No	No	No	No	No
126	60	34	90	15	Yes	13		145	62	29.35	Yes	Yes	No	No	No
127	80	44	70	15	No	0	0.97	175	105	34.3	Yes	No	No	No	No
128	60	40	92	15	No	0	1.02	145	65	30.9	Yes	No	No	No	No
129	80	28	88	15	No	0	0.97	150	62	27.6	No	No	No	No	No
130	100	30	88	15	No	0	0.94	174	86	28.4	No	No	No	No	No
131	100	44	80	15	No	0	0.97	145	52	24.7	No	No	No	No	No
132	70	34	93	15	No	0	1.02	169	60	21	No	No	No	No	No
133	80	36	94	15	No	0	1.02	160	65	25.4	No	No	No	No	No
134	70	32	88	15	No	0	1.02	156	62	25.5	No	No	No	No	No
135	60	30	89	15	No	0	0.98	165	62	22.8	No	No	No	No	No
136	100	24	95	15	No	0	0.97	157	57	23.1	No	No	No	No	No
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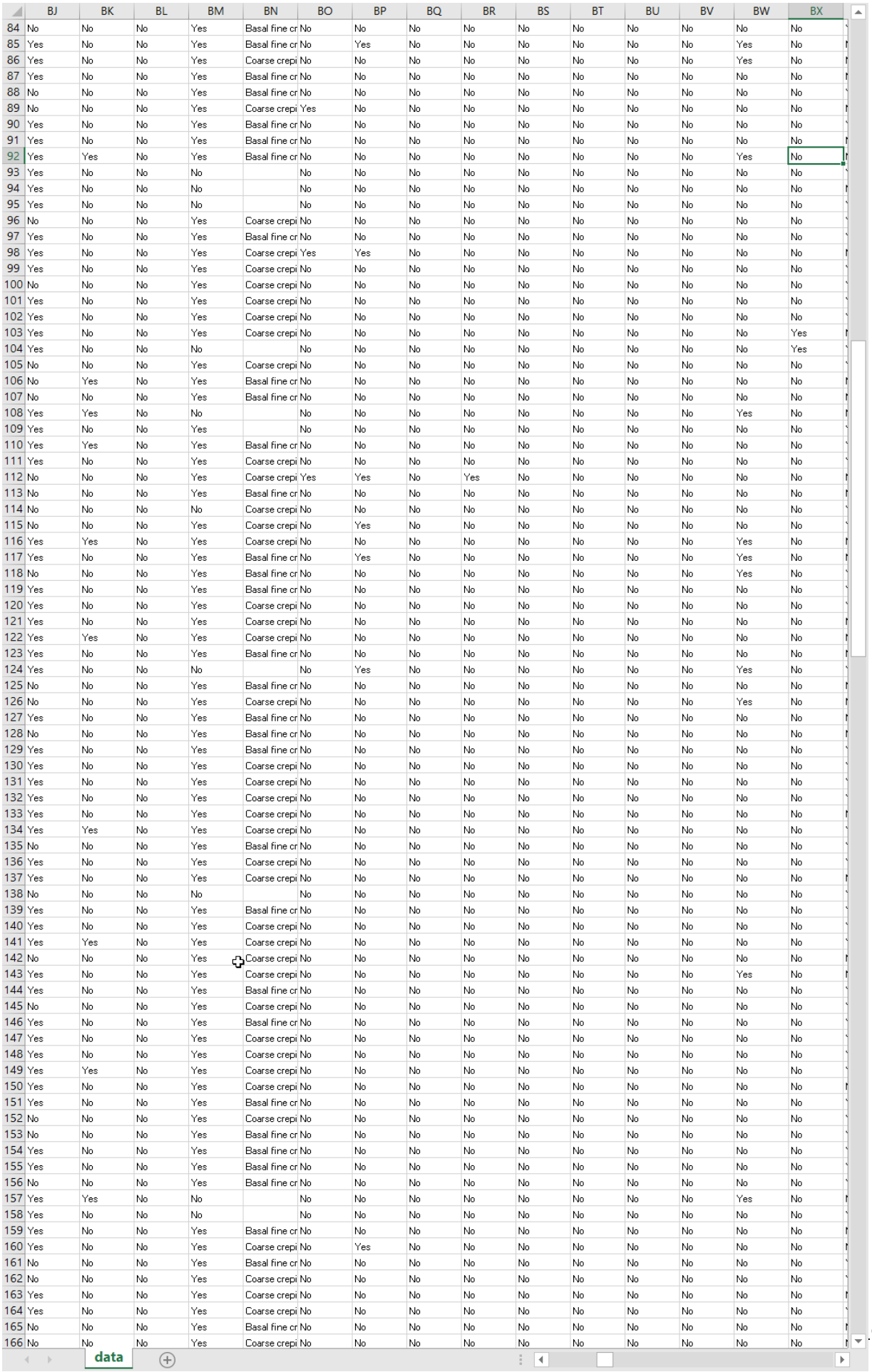
140	70	24	94	15	No	0	1.02	170	66	22.8	No	No	No	No	No
141	100	34	85	15	No	0		150	48	21.3	No	No	No	No	No
142	90	40	79	15	No	0	1.05	152	72	23.1	No	No	No	No	No
143	80	32	95	15	No	0	0.94	142	36	17.9	Yes	No	No	No	No
144	70	24	98	15	No	0	1.08	162	69	26.4	No	No	No	No	No
145	40	28	92	15	No	0	0.91	160	40	15.6	No	No	No	No	No
146	90	40	88	15	No	0					Yes	No	No	No	No
147	80	42	80	15	Yes	1	1.04	153	45	19.2	No	No	No	No	No
148	70	32	96	15	No	0	0.93	159	75	29.7	No	No	No	No	No
149	120	40	80	15	No	0	0.93	145	62	29.5	No	No	No	No	No
150	80	20	96	15	No	0	0.97	162	78	29.7	Yes	No	No	No	No
151	70	32	94	15	Yes	6	1.05	150	65	28.9	No	No	No	No	No
152	70	20	95	15	No	0					No	No	No	No	No
153	80	36	86	15	No	0	0.95	172	88	29.7	No	No	No	No	No
154	110	30	90	15	No	0	0.96	148	43	19.6	No	No	No	No	No
155	60	36	90	15	No	0	1.04	180	72	22.2	No	No	No	No	No
156	90	32	95	15	No	0	1.02	175	89	29.1	Yes	No	No	No	No
157	70	26	94	15	No	0	0.95	164	72	26.8	Yes	No	No	No	No
158	60	22	95	15	No	0	1.04	148	40	18.3	No	No	No	No	No
159	50	24	96	15	No	0	1.02	182	55	16.6	Yes	No	No	No	No
160	40	22	98	15	No	0	0.97	172	78	26.4	No	No	No	No	No
161	70	24	96	15	No	0	0.97	150	58	25.8	No	No	No	No	No
162	60	18	85	15	No	0	0.94	155	45	18.7	Yes	Yes	No	No	No
163	100	30	94	15	No	0	0.96	175	72	23.5	No	No	No	No	No
164	80	30	92	15	No	0	0.97	168	72	25.5	No	No	No	No	No
165	60	32	100	15	No	0					No	No	No	No	No
166	40	26	95	15	Yes	8	0.96	162	52	19.8	Yes	No	No	No	No

data



	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW	BX
84	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No	No
85	Yes	No	No	Yes	Basal fine cr	No	Yes	No	No	No	No	No	No	Yes	No
86	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	Yes	No
87	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No	No
88	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No	No
89	No	No	No	Yes	Coarse crepi	Yes	No	No	No	No	No	No	No	No	No
90	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No	No
91	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No	No
92	Yes	Yes	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	Yes	No
93	Yes	No	No	No		No	No	No	No	No	No	No	No	No	No
94	Yes	No	No	No		No	No	No	No	No	No	No	No	No	No
95	Yes	No	No	No		No	No	No	No	No	No	No	No	No	No
96	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No	No
97	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No	No
98	Yes	No	No	Yes	Coarse crepi	Yes	Yes	No	No	No	No	No	No	No	No
99	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No	No
100	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No	No
101	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No	No
102	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No	No
103	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No	Yes
104	Yes	No	No	No		No	No	No	No	No	No	No	No	No	Yes
105	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No	No
106	No	Yes	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No	No
107	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No	No
108	Yes	Yes	No	No		No	No	No	No	No	No	No	No	Yes	No
109	Yes	No	No	Yes		No	No	No	No	No	No	No	No	No	No
110	Yes	Yes	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No	No
111	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No	No
112	No	No	No	Yes	Coarse crepi	Yes	Yes	No	Yes	No	No	No	No	No	No
113	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No	No
114	No	No	No	No	Coarse crepi	No	No	No	No	No	No	No	No	No	No
115	No	No	No	Yes	Coarse crepi	No	Yes	No	No	No	No	No	No	No	No
116	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	Yes	No
117	Yes	No	No	Yes	Basal fine cr	No	Yes	No	No	No	No	No	No	Yes	No
118	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	Yes	No
119	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No	No
120	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No	No
121	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No	No
122	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No	No
123	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No	No
124	Yes	No	No	No		No	Yes	No	No	No	No	No	No	Yes	No
125	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No	No
126	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	Yes	No
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128	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No	No
129	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No	No
130	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No	No
131	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No	No
132	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No	No
133	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No	No
134	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No	No
135	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No	No
136	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No	No
137	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No	No
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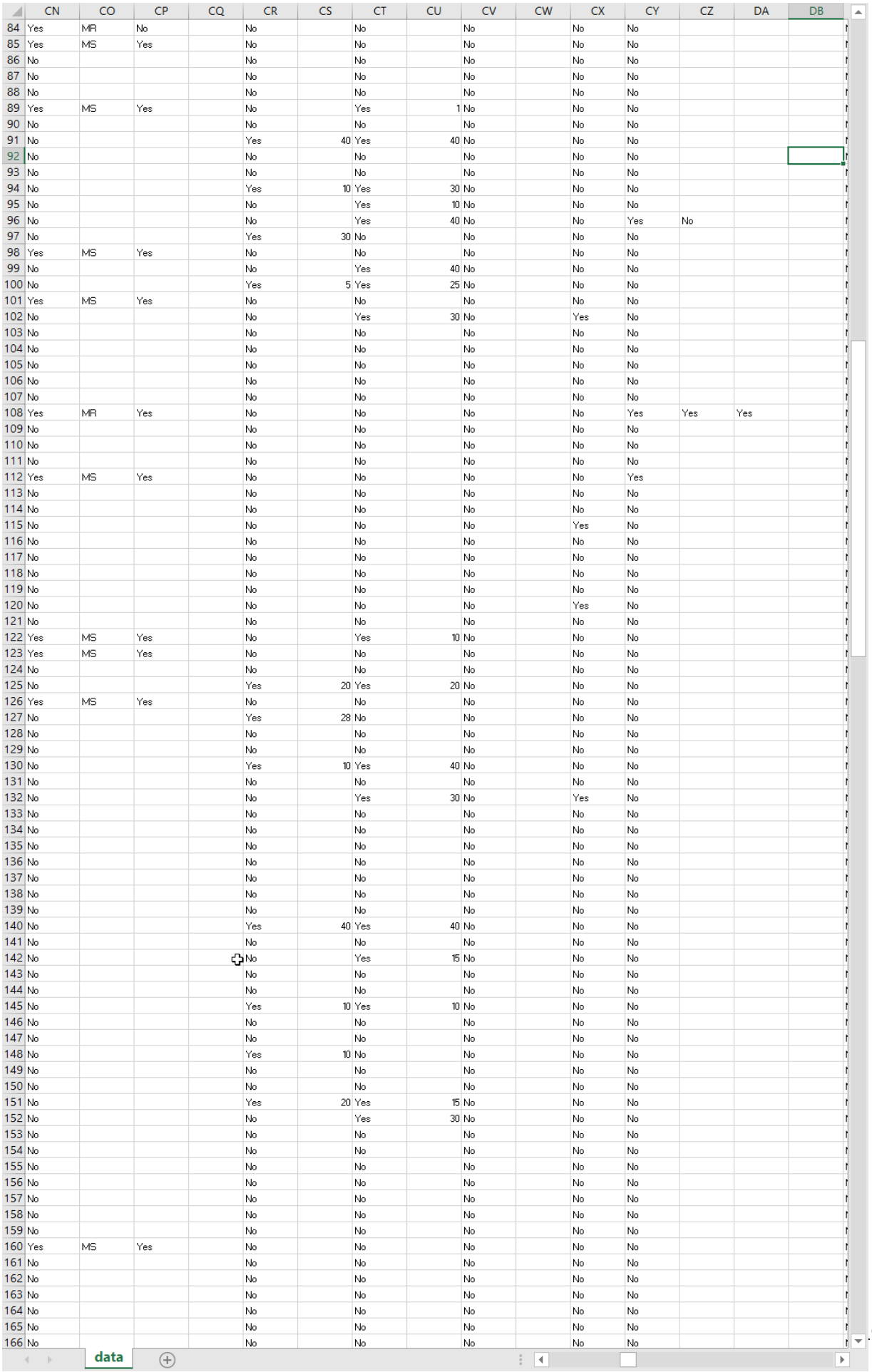

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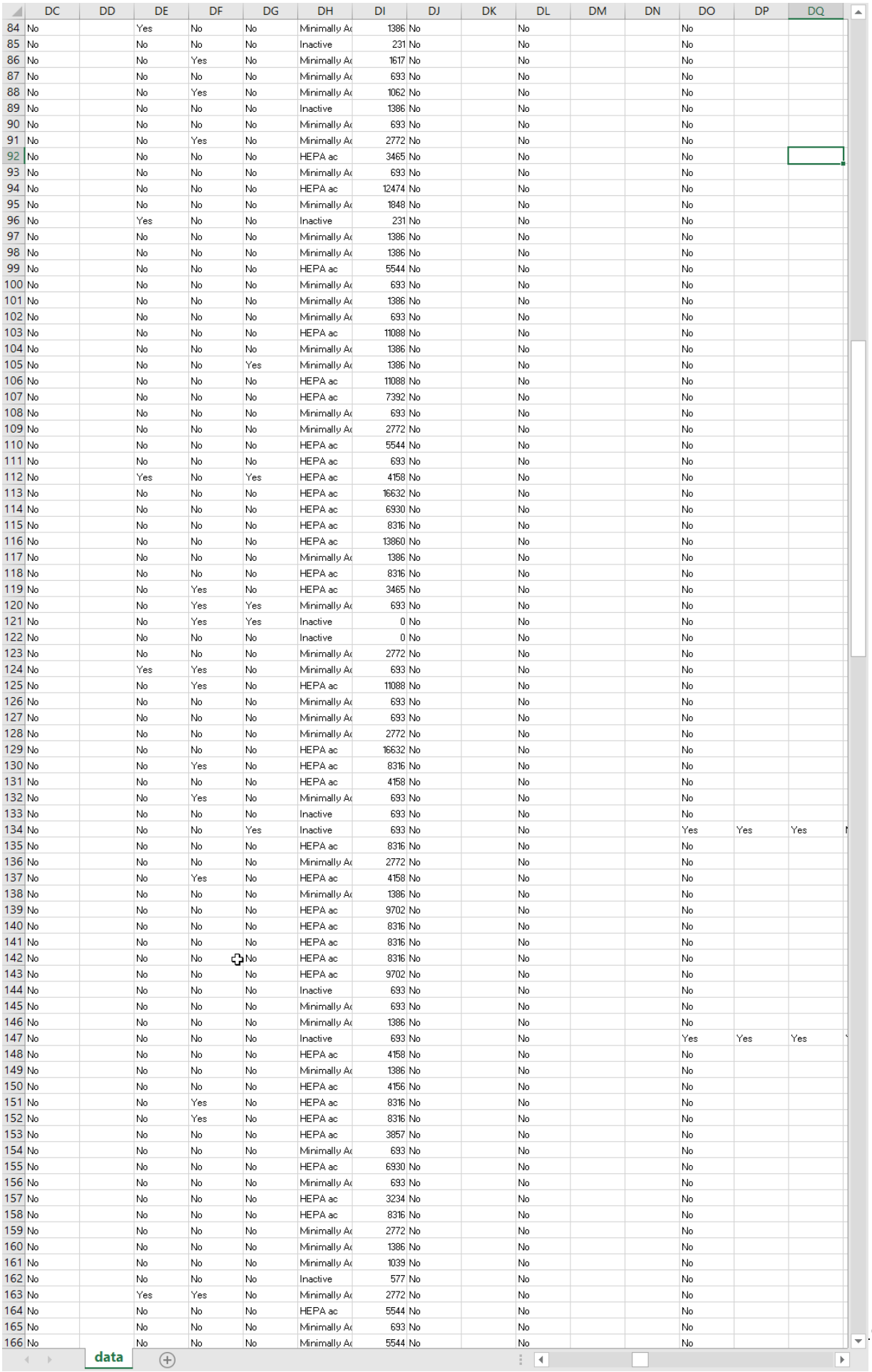

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88	No		No	Yes	No	Minimally Ac	1062	No		No			No		
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91	No		No	Yes	No	Minimally Ac	2772	No		No			No		
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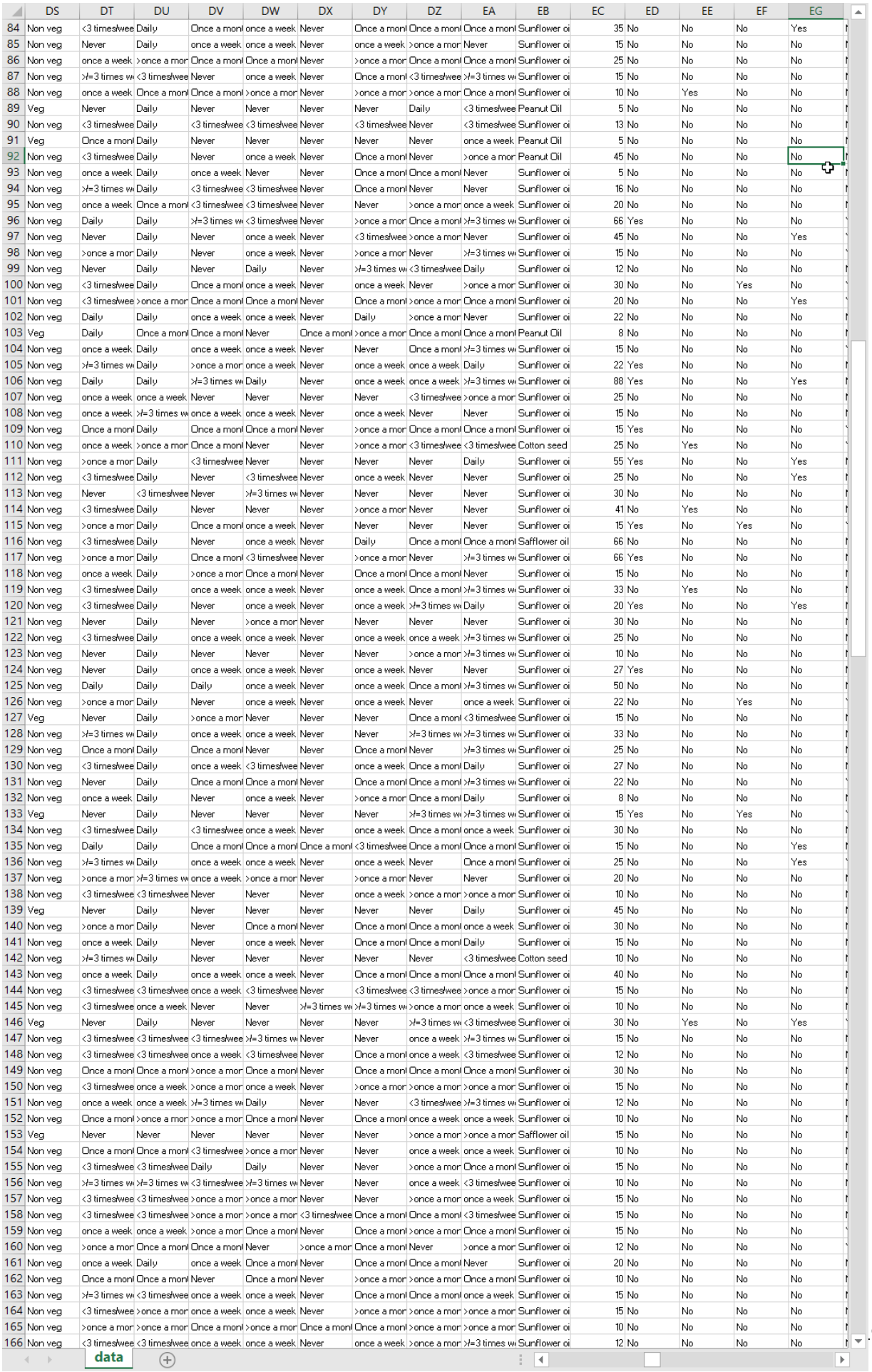
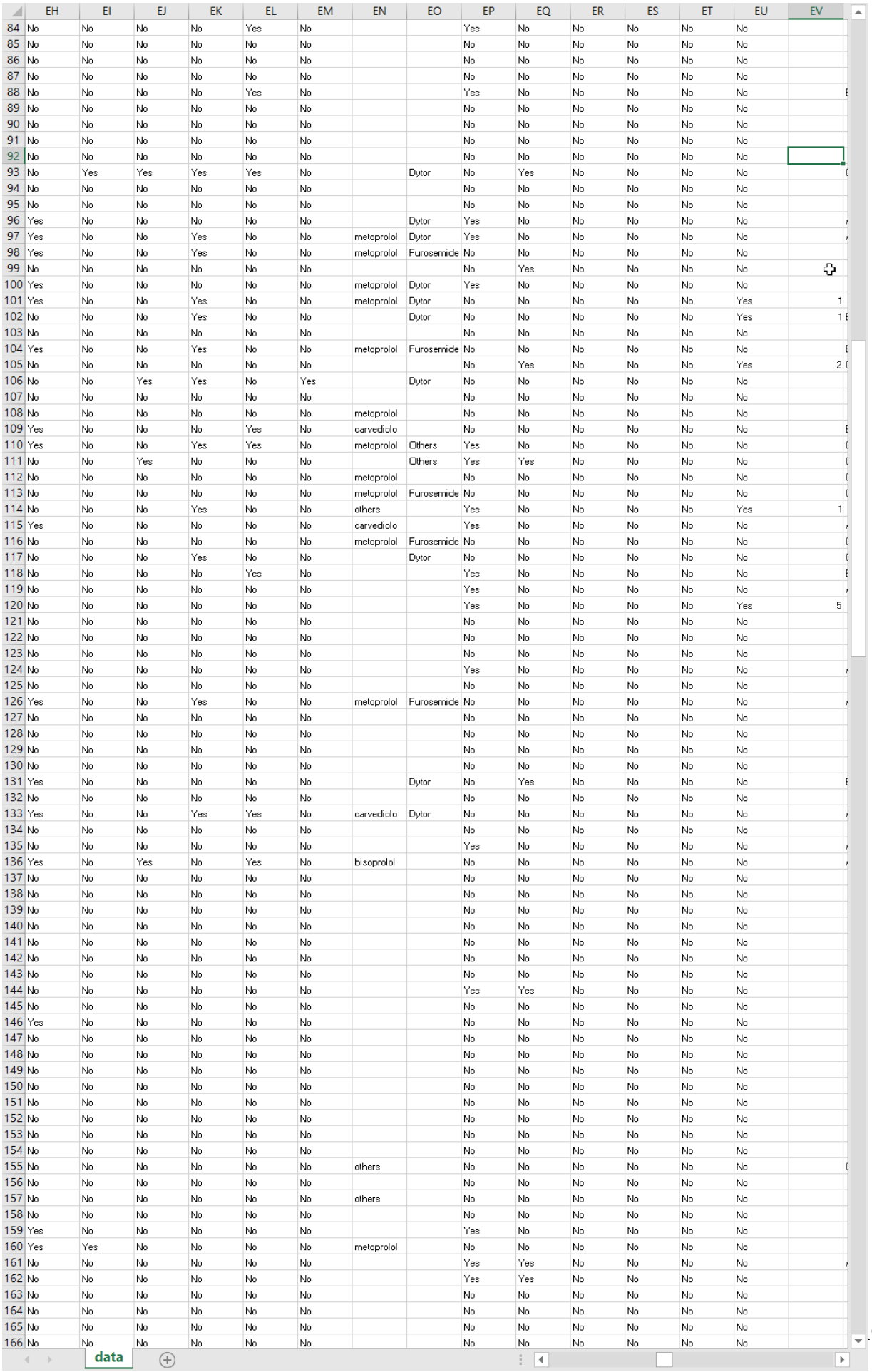
163	No		Yes	Yes	No	Minimally Ac	2772	No		No			No		
164	No		No	No	No	HEPA ac	5544	No		No			No		
165	No		No	No	No	Minimally Ac	693	No		No			No		
166	No		No	No	No	Minimally Ac	5544	No		No			No		

data



	DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB	EC	ED	EE	EF	EG
84	Non veg	<3 timeslwee	Daily	Once a mont	once a week	Never	Once a mont	Once a mont	Once a mont	Sunflower oi	35	No	No	No	Yes
85	Non veg	Never	Daily	once a week	once a week	Never	once a week	>once a mor	Never	Sunflower oi	15	No	No	No	No
86	Non veg	once a week	>once a mor	Once a mont	Once a mont	Never	>once a mor	Once a mont	Once a mont	Sunflower oi	25	No	No	No	No
87	Non veg	>/=3 times w	<3 timeslwee	Never	once a week	Never	Once a mont	<3 timeslwee	>/=3 times w	Sunflower oi	15	No	No	No	No
88	Non veg	once a week	Once a mont	Once a mont	>once a mor	Never	>once a mor	>once a mor	Once a mont	Sunflower oi	10	No	Yes	No	No
89	Veg	Never	Daily	Never	Never	Never	Never	Daily	<3 timeslwee	Peanut Oil	5	No	No	No	No
90	Non veg	<3 timeslwee	Daily	<3 timeslwee	<3 timeslwee	Never	<3 timeslwee	Never	<3 timeslwee	Sunflower oi	13	No	No	No	No
91	Veg	Once a mont	Daily	Never	Never	Never	Never	Never	once a week	Peanut Oil	5	No	No	No	No
92	Non veg	<3 timeslwee	Daily	Never	once a week	Never	Once a mont	Never	>once a mor	Peanut Oil	45	No	No	No	No
93	Non veg	once a week	Daily	once a week	Never	Never	Once a mont	Once a mont	Never	Sunflower oi	5	No	No	No	No
94	Non veg	>/=3 times w	Daily	<3 timeslwee	<3 timeslwee	Never	Once a mont	Never	Never	Sunflower oi	16	No	No	No	No
95	Non veg	once a week	Once a mont	<3 timeslwee	<3 timeslwee	Never	Never	>once a mor	once a week	Sunflower oi	20	No	No	No	No
96	Non veg	Daily	Daily	>/=3 times w	<3 timeslwee	Never	>once a mor	Once a mont	>/=3 times w	Sunflower oi	66	Yes	No	No	No
97	Non veg	Never	Daily	Never	once a week	Never	<3 timeslwee	>once a mor	Never	Sunflower oi	45	No	No	No	Yes
98	Non veg	>once a mor	Daily	Never	once a week	Never	>once a mor	Never	>/=3 times w	Sunflower oi	15	No	No	No	No
99	Non veg	Never	Daily	Never	Daily	Never	>/=3 times w	<3 timeslwee	Daily	Sunflower oi	12	No	No	No	No
100	Non veg	<3 timeslwee	Daily	Once a mont	once a week	Never	once a week	Never	>once a mor	Sunflower oi	30	No	No	Yes	No
101	Non veg	<3 timeslwee	>once a mor	Once a mont	Once a mont	Never	Once a mont	>once a mor	Once a mont	Sunflower oi	20	No	No	No	Yes
102	Non veg	Daily	Daily	once a week	once a week	Never	Daily	>once a mor	Never	Sunflower oi	22	No	No	No	No
103	Veg	Daily	Once a mont	Once a mont	Never	Once a mont	>once a mor	Once a mont	Once a mont	Peanut Oil	8	No	No	No	No
104	Non veg	once a week	Daily	once a week	once a week	Never	Never	Once a mont	>/=3 times w	Sunflower oi	15	No	No	No	No
105	Non veg	>/=3 times w	Daily	>once a mor	once a week	Never	once a week	once a week	Daily	Sunflower oi	22	Yes	No	No	No
106	Non veg	Daily	Daily	>/=3 times w	Daily	Never	once a week	once a week	>/=3 times w	Sunflower oi	88	Yes	No	No	Yes
107	Non veg	once a week	once a week	Never	Never	Never	Never	<3 timeslwee	>once a mor	Sunflower oi	25	No	No	No	No
108	Non veg	once a week	>/=3 times w	once a week	once a week	Never	once a week	Never	Never	Sunflower oi	15	No	No	No	No
109	Non veg	Once a mont	Daily	Once a mont	Once a mont	Never	>once a mor	Once a mont	Once a mont	Sunflower oi	15	Yes	No	No	No
110	Non veg	once a week	>once a mor	Once a mont	Never	Never	>once a mor	<3 timeslwee	<3 timeslwee	Cotton seed	25	No	Yes	No	No
111	Non veg	>once a mor	Daily	<3 timeslwee	Never	Never	Never	Never	Daily	Sunflower oi	55	Yes	No	No	Yes
112	Non veg	<3 timeslwee	Daily	Never	<3 timeslwee	Never	once a week	Never	Never	Sunflower oi	25	No	No	No	Yes
113	Non veg	Never	<3 timeslwee	Never	>/=3 times w	Never	Never	Never	Never	Sunflower oi	30	No	No	No	No
114	Non veg	<3 timeslwee	Daily	Never	Never	Never	>once a mor	Never	Never	Sunflower oi	41	No	Yes	No	No
115	Non veg	>once a mor	Daily	Once a mont	once a week	Never	Never	Never	Never	Sunflower oi	15	Yes	No	Yes	No
116	Non veg	<3 timeslwee	Daily	Never	once a week	Never	Daily	Once a mont	Once a mont	Safflower oil	66	No	No	No	No
117	Non veg	>once a mor	Daily	Once a mont	<3 timeslwee	Never	>once a mor	Never	>/=3 times w	Sunflower oi	66	Yes	No	No	No
118	Non veg	once a week	Daily	>once a mor	Once a mont	Never	Once a mont	Once a mont	Never	Sunflower oi	15	No	No	No	No
119	Non veg	<3 timeslwee	Daily	once a week	once a week	Never	once a week	Once a mont	>/=3 times w	Sunflower oi	33	No	Yes	No	No
120	Non veg	<3 timeslwee	Daily	Never	once a week	Never	once a week	>/=3 times w	Daily	Sunflower oi	20	Yes	No	No	Yes
121	Non veg	Never	Daily	Never	>once a mor	Never	Never	Never	Never	Sunflower oi	30	No	No	No	No
122	Non veg	<3 timeslwee	Daily	once a week	once a week	Never	once a week	once a week	>/=3 times w	Sunflower oi	25	No	No	No	No
123	Non veg	Never	Daily	Never	Never	Never	Never	>once a mor	>/=3 times w	Sunflower oi	10	No	No	No	No
124	Non veg	Never	Daily	once a week	once a week	Never	once a week	Never	Never	Sunflower oi	27	Yes	No	No	No
125	Non veg	Daily	Daily	Daily	once a week	Never	once a week	Once a mont	>/=3 times w	Sunflower oi	50	No	No	No	No
126	Non veg	>once a mor	Daily	Never	once a week	Never	once a week	Never	once a week	Sunflower oi	22	No	No	Yes	No
127	Veg	Never	Daily	>once a mor	Never	Never	Never	Once a mont	<3 timeslwee	Sunflower oi	15	No	No	No	No
128	Non veg	>/=3 times w	Daily	once a week	once a week	Never	Never	>/=3 times w	>/=3 times w	Sunflower oi	33	No	No	No	No
129	Non veg	Once a mont	Daily	Once a mont	Never	Never	Once a mont	Never	>/=3 times w	Sunflower oi	25	No	No	No	No
130	Non veg	<3 timeslwee	Daily	once a week	<3 timeslwee	Never	once a week	Once a mont	Daily	Sunflower oi	27	No	No	No	No
131	Non veg	Never	Daily	Once a mont	Once a mont	Never	Once a mont	Once a mont	>/=3 times w	Sunflower oi	22	No	No	No	No
132	Non veg	once a week	Daily	Never	once a week	Never	>once a mor	Once a mont	Daily	Sunflower oi	8	No	No	No	No
133	Veg	Never	Daily	Never	Never	Never	Never	>/=3 times w	>/=3 times w	Sunflower oi	15	Yes	No	Yes	No
134	Non veg	<3 timeslwee	Daily	<3 timeslwee	once a week	Never	once a week	Once a mont	once a week	Sunflower oi	30	No	No	No	No
135	Non veg	Daily	Daily	Once a mont	Once a mont	Once a mont	<3 timeslwee	Once a mont	Once a mont	Sunflower oi	15	No	No	No	Yes
136	Non veg	>/=3 times w	Daily	once a week	once a week	Never	once a week	Never	Once a mont	Sunflower oi	25	No	No	No	Yes
137	Non veg	>once a mor	>/=3 times w	once a week	>once a mor	Never	>once a mor	Never	Never	Sunflower oi	20	No	No	No	No
138	Non veg	<3 timeslwee	<3 timeslwee	Never	Never	Never	once a week	>once a mor	>once a mor	Sunflower oi	10	No	No	No	No
139	Veg	Never	Daily	Never	Never	Never	Never	Never	Daily	Sunflower oi	45	No	No	No	No
140	Non veg	>once a mor	Daily	Never	Once a mont	Never	Once a mont	Once a mont	once a week	Sunflower oi	30	No	No	No	No
141	Non veg	once a week	Daily	Never	once a week	Never	Once a mont	Once a mont	Daily	Sunflower oi	15	No	No	No	No
142	Non veg	>/=3 times w	Daily	Never	Never	Never	Never	Never	<3 timeslwee	Cotton seed	10	No	No	No	No
143	Non veg	once a week	Daily	once a week	once a week	Never	Once a mont	Once a mont	Once a mont	Sunflower oi	40	No	No	No	No
144	Non veg	<3 timeslwee	<3 timeslwee	once a week	<3 timeslwee	Never	<3 timeslwee	<3 timeslwee	>once a mor	Sunflower oi	15	No	No	No	No
145	Non veg	<3 timeslwee	once a week	Never	Never	>/=3 times w	>/=3 times w	>once a mor	once a week	Sunflower oi	10	No	No	No	No
146	Veg	Never	Daily	Never	Never	Never	Never	>/=3 times w	<3 timeslwee	Sunflower oi	30	No	Yes	No	Yes
147	Non veg	<3 timeslwee	<3 timeslwee	<3 timeslwee	>/=3 times w	Never	Never	once a week	>/=3 times w	Sunflower oi	15	No	No	No	No
148	Non veg	<3 timeslwee	<3 timeslwee	once a week	<3 timeslwee	Never	Once a mont	once a week	<3 timeslwee	Sunflower oi	12	No	No	No	No
149	Non veg	Once a mont	Once a mont	>once a mor	Once a mont	Never	Once a mont	Once a mont	Once a mont	Sunflower oi	30	No	No	No	No
150	Non veg	<3 timeslwee	once a week	>once a mor	once a week	Never	>once a mor	>once a mor	>once a mor	Sunflower oi	15	No	No	No	No
151	Non veg	once a week	once a week	>/=3 times w	Daily	Never	Never	<3 timeslwee	>/=3 times w	Sunflower oi	12	No	No	No	No
152	Non veg	Once a mont	>once a mor	>once a mor	Once a mont	Never	Once a mont	once a week	once a week	Sunflower oi	10	No	No	No	No
153	Veg	Never	Never	Never	Never	Never	Never	>once a mor	>once a mor	Safflower oil	15	No	No	No	No
154	Non veg	Once a mont	Once a mont	<3 timeslwee	>once a mor	Never	Never	once a week	once a week	Sunflower oi	10	No	No	No	No
155	Non veg	<3 timeslwee	<3 timeslwee	Daily	Daily	Never	Never	>once a mor	Once a mont	Sunflower oi	15	No	No	No	No
156	Non veg	>/=3 times w	>/=3 times w	<3 timeslwee	>/=3 times w	Never	Never	once a week	<3 timeslwee	Sunflower oi	10	No	No	No	No
157	Non veg	<3 timeslwee	<3 timeslwee	>once a mor	>once a mor	Never	Never	>once a mor	once a week	Sunflower oi	15	No	No	No	No
158	Non veg	<3 timeslwee	<3 timeslwee	>once a mor	>once a mor	<3 timeslwee	Once a mont	Once a mont	<3 timeslwee	Sunflower oi	15	No	No	No	No
159	Non veg	once a week	once a week	>once a mor	Once a mont	Never	Once a mont	>once a mor	Once a mont	Sunflower oi	15	No	No	No	No
160	Non veg	>once a mor	Once a mont	Once a mont	Never	>once a mor	Once a mont	Never	>once a mor	Sunflower oi	12	No	No	No	No
161	Non veg	once a week	Daily	once a week	Once a mont	Never	Once a mont	Once a mont	Never	Sunflower oi	20	No	No	No	No
162	Non veg	Once a mont	Once a mont	Never	Once a mont	Never	>once a mor	>once a mor	Once a mont	Sunflower oi	10	No	No	No	No
163	Non veg	>/=3 times w	<3 timeslwee	once a week	once a week	Never	Once a mont	Once a mont	once a week	Sunflower oi	15	No	No	No	No
164	Non veg	<3 timeslwee	>once a mor	once a week	once a week	Never	>once a mor	>once a mor	>once a mor	Sunflower oi	15	No	No	No	No
165	Non veg	>once a mor	>once a mor	Once a mont	>once a mor	Once a mont	Once a mont	>once a mor	>once a mor	Sunflower oi	10	No	No	No	No
166	Non veg	<3 timeslwee	<3 timeslwee	once a week	once a week	Never	once a week	>once a mor	>/=3 times w	Sunflower oi	12	No	No	No	No

data



	EH	EI	EJ	EK	EL	EM	EN	EO	EP	EQ	ER	ES	ET	EU	EV
84	No	No	No	No	Yes	No			Yes	No	No	No	No	No	
85	No	No	No	No	No	No			No	No	No	No	No	No	
86	No	No	No	No	No	No			No	No	No	No	No	No	
87	No	No	No	No	No	No			No	No	No	No	No	No	
88	No	No	No	No	Yes	No			Yes	No	No	No	No	No	
89	No	No	No	No	No	No			No	No	No	No	No	No	
90	No	No	No	No	No	No			No	No	No	No	No	No	
91	No	No	No	No	No	No			No	No	No	No	No	No	
92	No	No	No	No	No	No			No	No	No	No	No	No	
93	No	Yes	Yes	Yes	Yes	No		Dytor	No	Yes	No	No	No	No	
94	No	No	No	No	No	No			No	No	No	No	No	No	
95	No	No	No	No	No	No			No	No	No	No	No	No	
96	Yes	No	No	No	No	No		Dytor	Yes	No	No	No	No	No	
97	Yes	No	No	Yes	No	No	metoprolol	Dytor	Yes	No	No	No	No	No	
98	Yes	No	No	Yes	No	No	metoprolol	Furosemide	No	No	No	No	No	No	
99	No	No	No	No	No	No			No	Yes	No	No	No	No	
100	Yes	No	No	No	No	No	metoprolol	Dytor	Yes	No	No	No	No	No	
101	Yes	No	No	Yes	No	No	metoprolol	Dytor	No	No	No	No	No	Yes	1
102	No	No	No	Yes	No	No		Dytor	No	No	No	No	No	Yes	1
103	No	No	No	No	No	No			No	No	No	No	No	No	
104	Yes	No	No	Yes	No	No	metoprolol	Furosemide	No	No	No	No	No	No	
105	No	No	No	No	No	No			No	Yes	No	No	No	Yes	2
106	No	No	Yes	Yes	No	Yes		Dytor	No	No	No	No	No	No	
107	No	No	No	No	No	No			No	No	No	No	No	No	
108	No	No	No	No	No	No	metoprolol		No	No	No	No	No	No	
109	Yes	No	No	No	Yes	No	carvediolo		No	No	No	No	No	No	
110	Yes	No	No	Yes	Yes	No	metoprolol	Others	Yes	No	No	No	No	No	
111	No	No	Yes	No	No	No		Others	Yes	Yes	No	No	No	No	
112	No	No	No	No	No	No	metoprolol		No	No	No	No	No	No	
113	No	No	No	No	No	No	metoprolol	Furosemide	No	No	No	No	No	No	
114	No	No	No	Yes	No	No	others		Yes	No	No	No	No	Yes	1
115	Yes	No	No	No	No	No	carvediolo		Yes	No	No	No	No	No	
116	No	No	No	No	No	No	metoprolol	Furosemide	No	No	No	No	No	No	
117	No	No	No	Yes	No	No		Dytor	No	No	No	No	No	No	
118	No	No	No	No	Yes	No			Yes	No	No	No	No	No	
119	No	No	No	No	No	No			Yes	No	No	No	No	No	
120	No	No	No	No	No	No			Yes	No	No	No	No	Yes	5
121	No	No	No	No	No	No			No	No	No	No	No	No	
122	No	No	No	No	No	No			No	No	No	No	No	No	
123	No	No	No	No	No	No			No	No	No	No	No	No	
124	No	No	No	No	No	No			Yes	No	No	No	No	No	
125	No	No	No	No	No	No			No	No	No	No	No	No	
126	Yes	No	No	Yes	No	No	metoprolol	Furosemide	No	No	No	No	No	No	
127	No	No	No	No	No	No			No	No	No	No	No	No	
128	No	No	No	No	No	No			No	No	No	No	No	No	
129	No	No	No	No	No	No			No	No	No	No	No	No	
130	No	No	No	No	No	No			No	No	No	No	No	No	
131	Yes	No	No	No	No	No		Dytor	No	Yes	No	No	No	No	
132	No	No	No	No	No	No			No	No	No	No	No	No	
133	Yes	No	No	Yes	Yes	No	carvediolo	Dytor	No	No	No	No	No	No	
134	No	No	No	No	No	No			No	No	No	No	No	No	
135	No	No	No	No	No	No			Yes	No	No	No	No	No	
136	Yes	No	Yes	No	Yes	No	bisoprolol		No	No	No	No	No	No	
137	No	No	No	No	No	No			No	No	No	No	No	No	
138	No	No	No	No	No	No			No	No	No	No	No	No	
139	No	No	No	No	No	No			No	No	No	No	No	No	
140	No	No	No	No	No	No			No	No	No	No	No	No	
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142	No	No	No	No	No	No			No	No	No	No	No	No	
143	No	No	No	No	No	No			No	No	No	No	No	No	
144	No	No	No	No	No	No			Yes	Yes	No	No	No	No	
145	No	No	No	No	No	No			No	No	No	No	No	No	
146	Yes	No	No	No	No	No			No	No	No	No	No	No	
147	No	No	No	No	No	No			No	No	No	No	No	No	
148	No	No	No	No	No	No			No	No	No	No	No	No	
149	No	No	No	No	No	No			No	No	No	No	No	No	
150	No	No	No	No	No	No			No	No	No	No	No	No	
151	No	No	No	No	No	No			No	No	No	No	No	No	
152	No	No	No	No	No	No			No	No	No	No	No	No	
153	No	No	No	No	No	No			No	No	No	No	No	No	
154	No	No	No	No	No	No			No	No	No	No	No	No	
155	No	No	No	No	No	No	others		No	No	No	No	No	No	
156	No	No	No	No	No	No			No	No	No	No	No	No	
157	No	No	No	No	No	No	others		No	No	No	No	No	No	
158	No	No	No	No	No	No			No	No	No	No	No	No	
159	Yes	No	No	No	No	No			Yes	No	No	No	No	No	
160	Yes	Yes	No	No	No	No	metoprolol		No	No	No	No	No	No	
161	No	No	No	No	No	No			Yes	Yes	No	No	No	No	
162	No	No	No	No	No	No			Yes	Yes	No	No	No	No	
163	No	No	No	No	No	No			No	No	No	No	No	No	
164	No	No	No	No	No	No			No	No	No	No	No	No	
165	No	No	No	No	No	No			No	No	No	No	No	No	
166	No	No	No	No	No	No			No	No	No	No	No	No	

data

	EX	EY	EZ	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ	FK	FL
84	Others	Yes	No	None	134	RBBB	No	No		L	L	Yes	55.5	15	
85	Others	No	No	None	119	None	No	No		BL	BL	Yes	54.7	15	
86	Others	No	No	None	72	None	No	No		BL		9 Yes	52.2		
87	Others	No	No	None	87	None	No	No			9	9 No			
88	Atorvastatin	No	No	ST Depressi	153	LBBB	No	No		BL		9 Yes	50		0.5
89	Others	No	No	None	48	None	No	No		BL		9 Yes	64.7	21	0.3
90	Others	No	No	None	89	None	No	No			9	9 Yes	57.7	21	1.8
91	Others	No	No	None	169	None	No	No			9	9	9 39	12	
92	Others	No	No	None	115	None	Yes	No			9	R Yes	32.7	18	2.1
93	Atorvastatin	No	No	None	76	None	No	Yes	atrial fibrillat		9	L Yes	20.2		
94	Others	No	No	ST Elevatior	65	None	No	No			9	9	9 50.7		1
95	Others	No	No	ST Depressi	81	None	No	Yes	atrial fibrillat	BL		9	9 52		
96	Others	No	No	None	126	None	No	Yes	atrial fibrillat	BL		9 Yes	29.5	25	0.7
97	Atorvastatin	No	No	None	76	None	No	No		BL		9 Yes	29	22	
98	Others	Yes	No	None	175	None	No	Yes	atrial firbillat		9	9 Yes	54.5	25	
99	Others	No	No	None	97	None	Yes	No		R	R	Yes	24		
100	Others	No	No	None	96	None	No	Yes	vpc		9	L Yes	28.5	18	2.6
101	Others	No	No	None	95	None	No	No		BL		9 Yes	57.7	18	1.6
102	Others	No	No	ST Depressi	103	None	No	No		BL	R	Yes	41.2	11	3.6
103	Others	No	No	None	94	None	No	No		R	R	Yes	53.1	19	
104	Atorvastatin	No	No	None	73	None	No	No		BL	BL	Yes	30		
105	Others	No	No	ST Depressi	99	RBBB	No	No		BL		9 Yes	23.3		1.5
106	Others	No	No	None	81	None	No	No		BL		9 Yes	45.8	16	0.5
107	Others	No	No	None	86	None	No	No		BL		9 Yes	57.8	17	
108	Others	No	No	None	62	None	No	Yes	atrial fibrillat	BL		9 Yes	57.6	15	
109	Others	No	No	None	123	None	No	No		BL		9 Yes	40.3	28	0.6
110	Atorvastatin	No	No	None	88	LBBB	No	No			9	L No	40.4	18	0.8
111	Simvastatin	No	No	None	133	None	No	No		BL	R	Yes	35.6	16	1.6
112	Simvastatin	No	No	None	75	None	No	Yes	Atrial fibrillat	BL		9 Yes	59.2		
113	Simvastatin	No	No	None	113	None	No	No			9	L Yes	57.2	6	
114	Others	No	No	None	97	None	No	No		BL	BL	Yes	57	25	0.9
115	Atorvastatin	No	No	None	72	None	No	No			9	9 Yes	37.4	22	0.8
116	Simvastatin	No	No	None	133	LBBB	No	No		L		9 Yes	16.5	9	0.7
117	Others	No	No	None	100	RBBB	No	No			9	9 Yes	29.5	16	1.8
118	Atorvastatin	No	No	ST Depressi	111	None	No	No		BL		9 Yes	41.1	27	0.8
119	Others	No	No	ST Depressi	110	None	No	No		BL		9 Yes	57.2	21	0.7
120	Others	No	No	None	101	None	No	No		BL	R	Yes	45.1	17	
121	Others	No	No	None	100	None	No	No		BL		9 Yes	20.4		
122	Others	No	No	None	100	None	No	No		BL	R	Yes	59.4	14	
123	Others	No	No	ST Depressi	100	None	No	Yes	atrial fibrillat	BL		9 Yes	58.1	16	
124	Atorvastatin	No	No	None	89	None	No	No		BL		9 Yes	37.3	16	1.6
125	Others	No	No	None	114	None	No	No		BL	L	Yes	29.6	11	2.9
126	Others	No	No	None	113	None	No	No			9	9 Yes	55.9	21	
127	Others	No	No	None	101	None	No	No		BL		9 Yes	56.8	20	1.5
128	Others	No	No	None	122	None	No	No			9	9 Yes	38.6	24	1.2
129	Others	No	No	None	127	None	Yes	No			9	9 Yes	26.3	18	1.6
130	Atorvastatin	Yes	No	ST Depressi	67	None	No	No			9	9 Yes	57.3	18	1.7
131	Others	No	No	None	104	None	No	No		BL	BL	Yes	33.2	22	1.4
132	Others	No	No	None	146	RBBB	No	No		BL		9	9 55.2	23	0.6
133	Atorvastatin	No	No	None	82	None	Yes	No			9	9 Yes	36.3	21	1.5
134	Others	No	No	None	90	None	No	No			9	9 Yes	45	28	1.2
135	Atorvastatin	No	No	None	105	None	No	No		BL		9	9 62.4		0.7
136	Atorvastatin	Yes	No	None	96	None	No	No		BL		9 Yes	47.3	16	1.1
137	Others	No	No	None	108	None	No	Yes	atrial fibrillat		9	9 Yes	38.2	82	
138	Others	No	No	ST Elevatior	107	None	Yes	No		BL		9 No	36	22	0.6
139	Others	No	No	None	82	None	No	No		BL		9	9 64.8		1.1
140	Others	No	No	None	84	None	No	No		R		9 Yes	33.9	11	1.3
141	Others	No	No	ST Depressi	121	None	Yes	No		BL		9 Yes	31.7	19	1.2
142	Others	No	No	None	75	None	No	No		BL		9 Yes	42.4	25	1.6
143	Others	No	No	None	70	None	No	No		BL		9 Yes	54.1	37	
144	Atorvastatin	No	No	None	98	None	No	No			9	R Yes			
145	Others	No	No	ST Depressi	99	None	No	No		BL		9 Yes	18.6	16	0.4
146	Atorvastatin	No	No	None	70	None	No	No		BL		9 Yes	38.3	16	0.4
147	Others	No	No	ST Depressi	184	None	No	No		BL		9 Yes	47.1	23	0.8
148	Others	No	No	None	107	None	No	No			9	9	9		
149	Others	No	No	None	85	None	No	No		BL		9 Yes	41.4	18	0.7
150	Others	No	No	None	98	None	No	No		BL		9 Yes	55.8	12	0.7
151	Others	No	No	None	124	LBBB	No	No		R		9 Yes			
152	Others	No	No	None	89	None	No	No		BL	L	No	58.6	20	0.8
153	Others	No	No	None	121	RBBB	No	No		BL		9 Yes	27.1	14	
154	Others	No	No	ST Depressi	110	RBBB	No	No		BL	BL	Yes	32.5	21	1.3
155	Others	No	No	None	59	None	No	No			9	R Yes	44.2	5	1.5
156	Others	No	No	None	71	None	No	No		BL		9 Yes	56.7	30	0.8
157	Others	No	No	None	105	RBBB	No	No			9	9 Yes	31.1	13	
158	Others	No	No	None	123	LBBB	Yes	Yes			9	9 Yes	28.5	23	1.4
159	Others	No	No	None	88	None	No	No		BL		9 Yes	39.4	26	0.6
160	Others	No	No	ST Depressi	82	None	No	No			9	9 Yes	57.5	26	1.3
161	Atorvastatin	No	No	None	74	None	No	No			9	L Yes	35.3	13	1.7
162	Others	No	No	None	86	None	No	No		BL		9 Yes	42.7	9	1.2
163	Others	No	No	None	83	RBBB	No	No		BL		9 Yes	35.4	11	2.9
164	Others	No	No	None	85	RBBB	No	No		BL		9 Yes	38.4	18	2.8
165	Others	No	No	None	128	None	No	No			9	9 Yes			
166	Others	No	No	None	124	None	No	No			9	L Yes	59.1	18	0.5

data

	FK	FL	FM	FN	FO	FP	FQ	FR	FS	FT	FU	FV	FW	FX	FY
84	15		No	No	No	No	No	No	No	No	HFpEF(LVE	10.2	1.5		
85	15		Yes	No	No	Yes	No	No	No	No	HFpEF(LVE	17.5	0.6		
86			No	No	No	No	No	No	No	No	HFpEF(LVE	36.8	7.4	41.2	6.7
87															
88		0.5	No	No	No	No	No	No	No	No	HFpEF(LVE	16.1	6.6	229	35.4
89	21	0.3	Yes	No	No	No	No	No	No	No	HFpEF(LVE	100	2.3	165	3.5
90	21	1.8	No	No	No	No	No	No	No	No	HFpEF(LVE	17.5	1.8	19.1	
91	12		No	No	No	Yes	No	No	No	No	HFrEF (LVE	49.2		54.7	3.7
92	18	2.1	No	Yes	No	No	No	No	No	No	HFrEF (LVE	18.8	1.4		
93			No	No	No	Yes	No	No	No	No	HFrEF (LVE	89.8	5.8		
94		1	No	No	No	No	No	No	No	No	HFpEF(LVE	2959			
95			No	No	No	No	No	No	No	No	HFpEF(LVE	135		129	
96	25	0.7	No	Yes	No	No	No	No	No	No	HFrEF (LVE	154	1.9	154	2
97	22		No	Yes	No	No	No	No	No	No	HFrEF (LVE	58.2	3	1064	63.8
98	25		Yes	Yes	No	No	No	No	No	No	HFrEF (LVE	33.7	6.4		
99			No	No	No	No	No	No	No	No	HFrEF (LVE	105	2.1	113	2.2
100	18	2.6	No	No	No	No	No	No	No	No	HFrEF (LVE	29.4	1.9		
101	18	1.6	Yes	No	No	No	No	No	No	No	HFpEF(LVE	22.9	2.2		
102	11	3.6	No	Yes	No	Yes	No	No	No	No	HFmrEF(LVI	67.2	13.5	96.9	9.7
103	19		No	Yes	No	No	No	Yes	No	No	HFpEF(LVE	49.4	5.1	57.6	1.6
104			No	No	No	No	No	No	No	No	HFrEF (LVE	3201	12	2949	6.4
105		1.5	No	No	No	No	No	No	No	No	HFrEF (LVE	1677	27.5		
106	16	0.5	No	No	No	No	No	No	No	No	HFmrEF(LVI	114	10.6	116	4.7
107	17	0.7	No	No	No	No	No	No	No	No	HFpEF(LVE	13	1.1	13.9	1.3
108	15		Yes	No	No	Yes	No	No	No	No	HFpEF(LVE				
109	28	0.6	No	Yes	No	No	No	No	No	No	HFmrEF(LVI	26.8	3.5	339	9.3
110	18	0.8	No	Yes	No	No	No	No	No	No	HFmrEF(LVI	138	32.5	1128	4.8
111	16	1.6	No	Yes	No	No	No	No	No	No	HFrEF (LVE	1412	14.4	1960	35.1
112			Yes	No	No	No	No	No	No	No	HFpEF(LVE	12	1.2	15.4	6.1
113	6		No	No	No	No	No	No	No	No	HFpEF(LVE				
114	25	0.9	No	No	No	No	No	No	No	No	HFmrEF(LVI	9	4	14	4.2
115	22	0.8	No	Yes	No	No	No	No	No	No	HFrEF (LVE	25	1.2	26.7	1.4
116	9	0.7	No	No	No	Yes	No	No	No	No	HFrEF (LVE	18.7	3.2	21	3.5
117	16	1.8	No	No	No	Yes	No	No	No	No	HFrEF (LVE	29.2	0.4	32.6	2.5
118	27	0.8	No	Yes	No	No	No	No	No	No	HFmrEF(LVI	39	5.7	3240	91.8
119	21	0.7	No	No	No	No	No	No	No	No	HFpEF(LVE	46.3	3.3	129	9.9
120	17		No	No	No	Yes	No	No	No	No	HFmrEF(LVI	286	5.4		
121			No	No	No	No	No	No	No	No	HFrEF (LVE	67.4	4.6	60.1	5.8
122	14		Yes	No	No	Yes	No	No	No	No	HFpEF(LVE	8.1	8.3		
123	16		No	No	No	Yes	No	No	No	No	HFpEF(LVE	83.1	7.1	80	6.1
124	16	1.6	No	Yes	No	No	No	No	No	No	HFrEF (LVE	29.4	2.3		
125	11	2.9	No	Yes	No	Yes	No	No	No	No	HFrEF (LVE	18.3			
126	21		No	No	No	No	No	No	No	No	HFpEF(LVE	228	1.7		
127	20	1.5	No	No	No	No	No	No	No	No	HFpEF(LVE	8.3	0.3		
128	24	1.2	No	No	No	No	No	No	No	No	HFrEF (LVE	15.4	0.3		
129	18	1.6	No	No	No	No	No	No	No	No	HFrEF (LVE	93	91.9	104	7.7
130	18	1.7	No	No	No	No	No	No	No	No	HFpEF(LVE	155	8.6	676	25.4
131	22	1.4	No	No	No	No	No	No	No	No	HFrEF (LVE	26.2	14	26.1	5.4
132	23	0.6	No	No	No	No	No	No	No	No	HFpEF(LVE	132	8.2	144	11.5
133	21	1.5	No	Yes	No	No	No	No	No	No	HFrEF (LVE	13.5	3.2	25	3.1
134	28	1.2	No	Yes	No	No	No	No	No	No	HFmrEF(LVI	34.5		43.7	
135		0.7	No	No	No	No	No	No	No	No	HFpEF(LVE	59.6	4.1	46.1	7.8
136	16	1.1	No	No	No	No	No	No	No	No	HFmrEF(LVI	184	9	196	8.5
137	82		Yes	No	No	No	No	No	No	No	HFrEF (LVE	43.9	3.1	47.8	1.9
138	22	0.6	No	No	No	No	No	No	No	No	HFrEF (LVE	75.2	2.5	321	6.6
139		1.1	No	No	No	No	No	No	No	No	HFpEF(LVE	24.4	1.8	20.3	1.7
140	11	1.3	No	No	No	No	No	No	No	No	HFrEF (LVE	202	6.2	170	5.8
141	19	1.2	No	No	No	Yes	No	No	No	No	HFrEF (LVE	83.9	2	131	3.3
142	25	1.6	No	No	No	No	No	No	No	No	HFmrEF(LVI	25.1	4.8	33.8	4.5
143	37		No	No	No	No	No	No	No	No	HFpEF(LVE				
144												115	6.2	125	4.2
145	16	0.4	No	No	No	No	No	No	No	No	HFrEF (LVE	100	1.5	111	1.4
146	16	0.4	No	No	No	No	No	No	No	No	HFrEF (LVE	13.2	5.2	268	12.7
147	23	0.8	No	Yes	No	No	No	No	No	No	HFmrEF(LVI	24.1	3.6	250	3
148												72.6	12.7	88.4	13.9
149	18	0.7	No	Yes	No	No	No	No	No	No	HFmrEF(LVI	95.9	3.3	98.7	0.9
150	12	0.7	No	No	No	No	No	No	No	No	HFpEF(LVE				
151												24.8	3.3	307	21.5
152	20	0.8	No	No	No	No	No	No	No	No	HFpEF(LVE	95.7	2.1		
153	14		No	No	No	No	No	No	No	No	HFrEF (LVE	305	23.3	563	25.5
154	21	1.3	No	No	No	Yes	No	No	No	No	HFrEF (LVE	181		207	
155	5	1.5	No	No	No	No	No	No	No	No	HFmrEF(LVI	2217	4		
156	30	0.8	No	No	No	No	No	No	No	No	HFpEF(LVE	18.4	2.2	30.3	1.5
157	13		No	Yes	No	Yes	No	No	No	No	HFrEF (LVE	44.2	16.8	47	20.1
158	23	1.4	No	No	No	No	No	No	No	No	HFrEF (LVE	296	2	292	2
159	26	0.6	No	No	No	No	No	No	No	No	HFrEF (LVE	21.9	16.1	31.1	15.3
160	26	1.3	No	Yes	No	No	No	No	No	No	HFpEF(LVE				
161	13	1.7	No	Yes	No	Yes	No	No	No	No	HFrEF (LVE	68.5	1.8		
162	9	1.2	No	No	No	No	No	No	No	No	HFmrEF(LVI	44.2	1.6	42.2	8.5
163	11	2.9	No	No	No	No	No	No	No	No	HFrEF (LVE	24.1	3.7	25.1	3.3
164	18	2.8	No	No	No	No	No	No	No	No	HFrEF (LVE	784		879	
165												180		203	
166	18	0.5	No	No	No	No	No	No	No	No	HFpEF(LVE	6.1	0.6	128	2.5

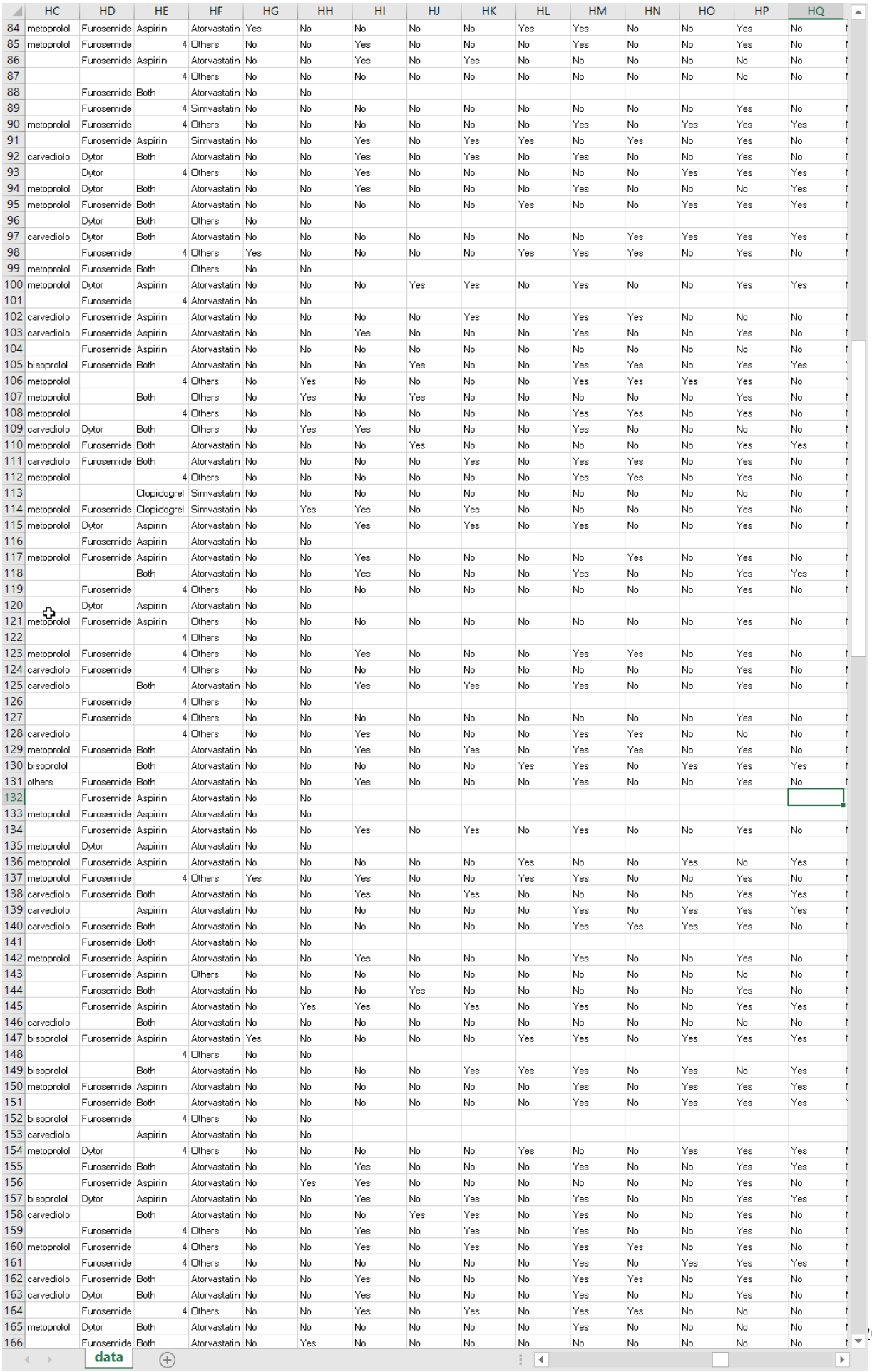
data

	FZ	GA	GB	GC	GD	GE	GF	GG	GH	GI	GJ	GK	GL	GM	GN
84	12.2	20	1	7.8	262	225	38	194	134	3.7				7.35	6.2
85	9.4	19	0.6	5.2					129	3					
86	13.6	69	1.1	7.5					140	3.1				7.33	1.7
87	2.2	8	0.8	6.4					136	2.7					
88	10.8	64	1	7.2	129	107	47	72	134	2.8				7.12	5.4
89	9.6	63	1.7	6	177	113	35	127	135	4.8				6.97	4.8
90	11	22	1.2	9.8	115	165	26	66	134	3.3				7.4	2.1
91	12.6	37	6.9	6.4	92	53	45	40	141	3.4				7.41	0.8
92	8.5	34	0.9	6.3	123	83	21	100	137	3.9				7.56	2.1
93	13.4	72	1.6	5.2	111	50	47	69	141	3.2					
94	12.3	39	1.9	6.2	105	153	25	55	140	2.6					
95	11.2	58	2.2	8.4	183	202	43	119	140	4.3				7.46	2.1
96	11.5	77	1.4	6.4	97	79	27	55	145	3.7				7.42	2.7
97	9.8	49	2.3	8.5	84	85	35	41	130	4.3	6.2			7.26	7.4
98	11.3	198	1.9		135	57	41	92	122	5.6				7.28	11.5
99	15.5	96	2.1	14					132	3.4	11.2			7.32	2.1
100	11.7	23	1.1	6.1					134	3.9				7.57	1.7
101	8.8	21	1.4	9.4	285	23	45	213	134	3.3	6.8			7.24	3.2
102	8.3	51	1	8.6	205	107	93	102	127	4.4			287	7.47	2
103	10.1	61	1.4	4.4					135	5.1			294	7.38	4.7
104	9.8	623	3.8						101	3			247	7.5	2.9
105	12	68	1.2	10	108	122	29	64	130	4.3				7.38	1.8
106	9.2	114	2.6		165	136	50	87	137	4.1	5.8			7.29	5.1
107	12	57	1.5	5.9	201	161	44	150	140	3.4		41		7.48	1.2
108	7.3	44	1.4	5.5	88	70	19	48	133	4.2	9.5				
109	6.3	26	1.1	6.5	202	105	37	155	138	4.8				7.32	4.5
110	14.7	30	0.9	6.3	152	159	33	105	139	3.8	5.6			7.25	5.1
111	14	47	1.8	8.4					124	4.6		14232		7.02	8
112	11.4	31	0.9	6.7	130	90	16	99	142	3.1				7.12	8.9
113	9.5	40	0.6	5.3	80	162	6	28	137	3.7					
114	9.2	70	1.3	11.2					116	4.8		1711		7.44	1.2
115	12	25	0.7	6.4	107	93	30	63	141	4.1	5.5			7.44	1
116	11.4	41	0.5	6					138	3.9				7.52	2.5
117	10.8	27	1.2	7.1					134	3.9	9.9				
118	11.1	27	0.8	6.8	138	165	52	79	134	4.2				7.05	9.6
119	5.3	38	0.8	4	126	60	42	74	131	5	5.1			7.4	3.5
120	9.1	95	2.7	7.6	194	185	60	122	137	4.6	6.1			7.35	0.8
121	17.7	76	2	6.5	120	128	34	74	125	5.7	12.3	28554	277	7.38	1.6
122	10.9	143	2.3						120	6.3	9.7			7.45	3.2
123	14.2	64	1.6	5.5	165	122	28	112	136	5.1					
124	9.8	79	1.2	7.3	167	79	49	110	133	3.2				7.52	3.6
125	11.5	29	1.1	6.3	201	300	42	124	132	3.9	4.6			7.49	1.1
126	10.7	44	0.8	5.7	185	100	44	128	123	2.7	5.8		271	7.57	1.2
127	4.7	37	0.8	7.1	137	181	16	91	132	3.3				7.47	0.7
128	13.8	26	0.6	5.6	89	121	32	39	133	4.1			272	7.46	1
129	14.6	29	0.8	8.1	262	260	60	192	136	3.8				7.43	4.3
130	11.1	76	3.4		154	191	48	96	133	4.4	3.3	14135		7.1	2.5
131	12.1	12	0.7	8	124	102	24	84	132	3				7.41	2.4
132	14	91	1.4	6.5	75	257	4	62	132	4.6				7.48	1.3
133	11.2	37	0.9	5.7	307	136	40	237	143	3.9	6			6.9	13
134	11	54	1	7.6	118	189	35	65	140	4.6				7.45	1.5
135	10.2	48	1.1	6.7					136	3.9	4.5			7.33	3.8
136	11.7	148	8.1	6.4	106	191	29	57	138	4.2	8			7.36	1.7
137	12.5	37	0.8	6.2					140	3.6				7.53	0.9
138	9	125	4	6.2	186	119	42	129	132	4.1			340	7.45	1.3
139	11.6	76	2.9	7.9	132	107	53	62	136	5.4	8.6				
140	7.8	67	2.3	8.7					134	3.7				7.35	3.3
141	11.2	26	0.8	14	167	148	42	107	131	3.4				7.47	3.6
142	8.8	82	1.6		81	67	31	43	143	4.9	9			7.26	1.5
143	3.5	17	0.7	4.9					132	3.8	5			7.11	1.5
144	8.6	26	0.9	6.7					108	3.4			244	7.49	1.5
145	15.4	22	0.6	6.8					131	4.2			271	7.48	1.9
146	11.5	39	1.3	9.3	263	225	49	179	135	4.7				7.36	3.2
147	10.9	29	0.7	6.7	120	130	48	60	138	5.1				7.47	3.1
148	11.3	16	1.3	5.6					126	3.3			267	7.39	4.9
149	12.2	29	0.8	11.9	141	77	52	84	143	3.9				7.41	1.4
150	8.4	0	3.8	6.5	109	145	34	55	139	4.2	13.1			7.47	0.5
151	14.7	20	1.4	8.4					136	3.6	8.7			6.8	20
152	10.6	87	4.1						116	3.5			258	7.45	2.1
153	12.2	124	3.2	8					134	5.4	19.9	35000		7.36	3.3
154	10.1	107	4	6.6					133	5				7.37	1.4
155	11.9	89	1	9.6					122	4.2			288	7.54	2
156	11.8	41	0.7	7.7					136	2.6				7.41	1.4
157	13.3	66	0.9		96	72	13	74	114	5	7.9		259	7.42	3.5
158	8.5	87	1.2	8.7	110	613	3	67	132	5.6	8.6			7.39	7.5
159	2	43	1.2	5.4					135	4.4	10.7			7.48	6.6
160	12	68	1.7	5.7					129	5	6.1		289	7.49	0.7
161	8.4	88	3.3		89	139	29	40	138	5.8	8.8		291	7.48	1.5
162	8.4	60	1.5	11.8	102	108	29	58	129	4.5				7.45	1.4
163	15.3	53	1	11.5	151	160	17	114	136	4.1	6.4	5334		7.41	2.1
164	13.4	49	1		200	179	34	157	141	3.7				7.52	0.9
165	10.4		1.2	6	95	77	36	42	134	3.3					
166	10.1	57	1.1	6.3					136	4.1				7.35	4.9

data

	GN	GO	GP	GQ	GR	GS	GT	GU	GV	GW	GX	GY	GZ	HA	HB
84	6.2	No	0	No	0	No	No	No	Yes	Yes	No	No	Yes	No	No
85		No	0	No	0	Yes	No	No	No	Yes	No	No	Yes	No	No
86	1.7	No	0	No	0	Yes	No	No	No	No	No	No	Yes	No	No
87		No	0	No	0	No	No	No	No	No	No	No	No	No	No
88	5.4	No	0	No	0	No	Yes	No	Yes	No	No	Yes	Yes	Yes	No
89	4.8	Yes	3	No	0	No	No	No	No	No	No	No	Yes	No	No
90	2.1	No	0	No	0	No	No	No	No	Yes	No	Yes	Yes	Yes	No
91	0.8	No	0	No	0	Yes	No	No	Yes	No	Yes	No	Yes	No	No
92	2.1	No	0	No	0	Yes	No	Yes	No	Yes	No	No	Yes	No	No
93		No	0	No	0	Yes	No	Yes	No	No	No	No	Yes	No	No
94		No	0	No	0	Yes	No	No	No	Yes	No	No	Yes	No	No
95	2.1	No	0	No	0	No	No	No	Yes	Yes	No	No	Yes	Yes	No
96	2.7	No	0	No	0	Yes	No	Yes	Yes	No	No	No	Yes	No	No
97	7.4	No	0	No	0	No	No	No	No	Yes	Yes	Yes	Yes	No	No
98	11.5	No	0	No	0	No	No	No	Yes	No	Yes	No	Yes	No	No
99	2.1	Yes	1	No	0	No	No	No	No	Yes	No	Yes	Yes	Yes	No
100	1.7	No	0	No	0	Yes	No	Yes	No	Yes	No	No	Yes	No	No
101	3.2	No	0	Yes	9	No	No	No	Yes	No	No	No	Yes	No	No
102	2	No	0	No	0	Yes	No	No	No	Yes	Yes	No	Yes	No	No
103	4.7	Yes	1	No	0	Yes	No	No	No	Yes	No	No	Yes	No	No
104	2.9	Yes	1	No	0	No	No	No	No	No	No	Yes	Yes	Yes	No
105	1.8	No	0	Yes	4	No	Yes	No	No	Yes	Yes	No	Yes	Yes	No
106	5.1	No	0	No	0	No	No	No	No	Yes	Yes	Yes	No	Yes	Yes
107	1.2	No	0	No	0	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes
108		No	0	No	0	No	No	Yes	No	Yes	Yes	No	No	No	No
109	4.5	Yes	2	No	0	Yes	No	No	No	Yes	No	No	Yes	No	No
110	5.1	No	0	No	0	No	Yes	No	No	Yes	No	No	Yes	No	No
111	8	No	0	No	0	No	Yes	Yes	No	Yes	Yes	No	Yes	No	No
112	8.9	No	0	No	0	No	No	No	Yes	Yes	No	No	No	No	No
113		No	0	No	0	No	No	No	No	No	No	No	No	No	No
114	1.2	Yes	1	No	0	No	Yes	No	Yes	Yes	No	No	Yes	No	No
115	1	No	0	No	0	Yes	No	No	No	Yes	No	No	Yes	No	No
116	2.5	Yes	2	No	0	Yes	No	Yes	No	No	Yes	No	Yes	No	No
117		Yes	1	No	0	Yes	No	No	No	Yes	Yes	No	Yes	No	No
118	9.6	Yes	1	No	0	Yes	No	No	No	No	No	No	No	No	No
119	3.5	Yes	2	No	0	No	No	No	No	No	No	No	Yes	No	No
120	0.8	No	0	No	0	No	No	No	Yes	No	No	Yes	Yes	Yes	No
121	1.6	Yes	1	No	0	No	No	No	No	Yes	No	No	Yes	No	No
122	3.2	No	0	No	0	No	No	No	No	No	No	No	No	No	No
123		Yes	2	No	0	No	No	No	No	Yes	Yes	No	Yes	No	No
124	3.6	No	0	No	0	Yes	No	No	No	Yes	No	No	Yes	No	No
125	1.1	Yes	1	No	0	No	No	Yes	No	Yes	No	No	No	No	No
126	1.2	No	0	Yes	13	No	No	No	No	No	Yes	No	Yes	No	No
127	0.7	No	0	No	0	No	No	No	No	No	No	No	Yes	No	No
128	1	No	0	No	0	Yes	No	No	No	Yes	No	No	No	No	No
129	4.3	No	0	No	0	Yes	No	Yes	No	Yes	Yes	No	Yes	No	No
130	2.5	No	0	No	0	No	No	No	Yes	Yes	No	No	No	No	No
131	2.4	No	0	No	0	Yes	No	Yes	No	Yes	No	No	Yes	No	No
132	1.3	No	0	No	0	No	No	No	No	No	Yes	No	Yes	No	No
133	13	No	0	No	0	Yes	No	Yes	No	Yes	No	No	Yes	No	No
134	1.5	No	0	No	0	Yes	No	Yes	No	No	No	No	Yes	No	No
135	3.8	No	0	No	0	No	No	No	No	Yes	Yes	No	Yes	No	No
136	1.7	No	0	No	0	No	No	No	Yes	Yes	No	Yes	Yes	No	No
137	0.9	No	0	No	0	Yes	No	No	Yes	Yes	No	No	Yes	No	No
138	1.3	No	0	No	0	No	No	No	No	Yes	No	Yes	Yes	Yes	No
139		No	0	No	0	No	No	Yes	No	Yes	No	Yes	No	Yes	No
140	3.3	Yes	3	No	0	No	No	No	No	Yes	Yes	No	Yes	No	No
141	3.6	No	0	No	0	Yes	No	Yes	No	No	No	No	Yes	No	No
142	1.5	No	0	No	0	Yes	No	No	No	Yes	No	No	Yes	No	No
143	1.5	No	0	No	0	No	No	No	No	No	No	No	Yes	No	No
144	1.5	No	0	No	0	No	Yes	No	No	No	No	No	Yes	No	No
145	1.9	No	0	No	0	Yes	No	Yes	No	No	Yes	No	Yes	Yes	No
146	3.2	No	0	No	0	No	Yes	Yes	Yes	Yes	No	No	No	Yes	No
147	3.1	No	0	Yes	1	No	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	No
148	4.9	No	0	No	0	No	No	No	No	No	No	No	No	No	No
149	1.4	No	0	No	0	Yes	No	Yes	Yes	Yes	No	No	No	Yes	No
150	0.5	No	0	No	0	No	No	No	No	Yes	No	Yes	Yes	Yes	No
151	20	No	0	Yes	6	Yes	No	No	No	No	No	No	Yes	No	No
152	2.1	No	0	No	0	No	No	No	Yes	Yes	No	No	Yes	No	Yes
153	3.3	Yes	4	No	0	No	Yes	No	Yes	Yes	No	No	No	No	No
154	1.4	No	0	No	0	No	No	No	Yes	Yes	No	Yes	Yes	No	No
155	2	No	0	No	0	Yes	No	No	No	No	No	No	Yes	Yes	No
156	1.4	No	0	No	0	Yes	No	No	No	No	No	No	Yes	No	No
157	3.5	No	0	No	0	No	Yes	No	No	Yes	No	No	Yes	No	No
158	7.5	No	0	No	0	No	No	No	No	Yes	No	No	No	No	No
159	6.6	No	0	No	0	No	No	No	No	No	No	No	Yes	No	No
160	0.7	No	0	No	0	Yes	No	No	No	Yes	Yes	No	Yes	No	No
161	1.5	No	0	No	0	No	No	No	No	No	No	Yes	Yes	Yes	No
162	1.4	No	0	No	0	No	Yes	No	No	Yes	Yes	No	Yes	No	No
163	2.1	No	0	No	0	No	No	No	No	Yes	No	No	Yes	No	No
164	0.9	No	0	No	0	Yes	No	Yes	No	No	Yes	No	Yes	No	No
165		No	0	No	0	Yes	No	No	No	Yes	No	No	Yes	No	No
166	4.9	No	0	Yes	8	No	No	No	No	No	No	No	Yes	No	No

data



	HC	HD	HE	HF	HG	HH	HI	HJ	HK	HL	HM	HN	HO	HP	HQ
84	metoprolol	Furosemide	Aspirin	Atorvastatin	Yes	No	No	No	No	Yes	Yes	No	No	Yes	No
85	metoprolol	Furosemide	4	Others	No	No	Yes	No	No	No	Yes	No	No	Yes	No
86		Furosemide	Aspirin	Atorvastatin	No	No	Yes	No	Yes	No	No	No	No	No	No
87			4	Others	No	No	No	No	No	No	No	No	No	No	No
88		Furosemide	Both	Atorvastatin	No	No									
89		Furosemide	4	Simvastatin	No	No	No	No	No	No	No	No	No	Yes	No
90	metoprolol	Furosemide	4	Others	No	No	No	No	No	No	Yes	No	Yes	Yes	Yes
91		Furosemide	Aspirin	Simvastatin	No	No	Yes	No	Yes	Yes	No	Yes	No	Yes	No
92	carvediolo	Dytor	Both	Atorvastatin	No	No	Yes	No	Yes	No	Yes	No	No	Yes	No
93		Dytor	4	Others	No	No	Yes	No	No	No	No	No	Yes	Yes	Yes
94	metoprolol	Dytor	Both	Atorvastatin	No	No	Yes	No	No	No	Yes	No	No	No	Yes
95	metoprolol	Furosemide	Both	Atorvastatin	No	No	No	No	No	Yes	No	No	Yes	Yes	Yes
96		Dytor	Both	Others	No	No									
97	carvediolo	Dytor	Both	Atorvastatin	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
98		Furosemide	4	Others	Yes	No	No	No	No	Yes	Yes	Yes	No	Yes	No
99	metoprolol	Furosemide	Both	Others	No	No									
100	metoprolol	Dytor	Aspirin	Atorvastatin	No	No	No	Yes	Yes	No	Yes	No	No	Yes	Yes
101		Furosemide	4	Atorvastatin	No	No									
102	carvediolo	Furosemide	Aspirin	Atorvastatin	No	No	No	No	Yes	No	Yes	Yes	No	No	No
103	carvediolo	Furosemide	Aspirin	Atorvastatin	No	No	Yes	No	No	No	Yes	No	No	Yes	No
104		Furosemide	Aspirin	Atorvastatin	No	No	No	No	No	No	No	No	No	No	No
105	bisoprolol	Furosemide	Both	Atorvastatin	No	No	No	Yes	No	No	Yes	Yes	No	Yes	Yes
106	metoprolol		4	Others	No	Yes	No	No	No	No	Yes	Yes	Yes	Yes	No
107	metoprolol		Both	Others	No	Yes	No	Yes	No	No	No	No	No	Yes	No
108	metoprolol		4	Others	No	No	No	No	No	No	Yes	Yes	No	Yes	No
109	carvediolo	Dytor	Both	Others	No	Yes	Yes	No	No	No	Yes	No	No	No	No
110	metoprolol	Furosemide	Both	Atorvastatin	No	No	No	Yes	No	No	No	No	No	Yes	Yes
111	carvediolo	Furosemide	Both	Atorvastatin	No	No	No	No	Yes	No	Yes	Yes	No	Yes	No
112	metoprolol		4	Others	No	No	No	No	No	No	Yes	Yes	No	Yes	No
113			Clopidogrel	Simvastatin	No	No	No	No	No	No	No	No	No	No	No
114	metoprolol	Furosemide	Clopidogrel	Simvastatin	No	Yes	Yes	No	Yes	No	No	No	No	Yes	No
115	metoprolol	Dytor	Aspirin	Atorvastatin	No	No	Yes	No	Yes	No	Yes	No	No	Yes	No
116		Furosemide	Aspirin	Atorvastatin	No	No									
117	metoprolol	Furosemide	Aspirin	Atorvastatin	No	No	Yes	No	No	No	No	Yes	No	Yes	No
118			Both	Atorvastatin	No	No	Yes	No	No	No	Yes	No	No	Yes	Yes
119		Furosemide	4	Others	No	No	No	No	No	No	No	No	No	Yes	No
120		Dytor	Aspirin	Atorvastatin	No	No									
121	metoprolol	Furosemide	Aspirin	Others	No	No	No	No	No	No	No	No	No	Yes	No
122			4	Others	No	No									
123	metoprolol	Furosemide	4	Others	No	No	Yes	No	No	No	Yes	Yes	No	Yes	No
124	carvediolo	Furosemide	4	Others	No	No	No	No	No	No	No	No	No	Yes	No
125	carvediolo		Both	Atorvastatin	No	No	Yes	No	Yes	No	Yes	No	No	Yes	No
126		Furosemide	4	Others	No	No									
127		Furosemide	4	Others	No	No	No	No	No	No	No	No	No	Yes	No
128	carvediolo		4	Others	No	No	Yes	No	No	No	Yes	Yes	No	No	No
129	metoprolol	Furosemide	Both	Atorvastatin	No	No	Yes	No	Yes	No	Yes	Yes	No	Yes	No
130	bisoprolol		Both	Atorvastatin	No	No	No	No	No	Yes	Yes	No	Yes	Yes	Yes
131	others	Furosemide	Both	Atorvastatin	No	No	Yes	No	No	No	Yes	No	No	Yes	No
132		Furosemide	Aspirin	Atorvastatin	No	No									
133	metoprolol	Furosemide	Aspirin	Atorvastatin	No	No									
134		Furosemide	Aspirin	Atorvastatin	No	No	Yes	No	Yes	No	Yes	No	No	Yes	No
135	metoprolol	Dytor	Aspirin	Atorvastatin	No	No									
136	metoprolol	Furosemide	Aspirin	Atorvastatin	No	No	No	No	No	Yes	No	No	Yes	No	Yes
137	metoprolol	Furosemide	4	Others	Yes	No	Yes	No	No	Yes	Yes	No	No	Yes	No
138	carvediolo	Furosemide	Both	Atorvastatin	No	No	Yes	No	Yes	No	No	No	No	Yes	Yes
139	carvediolo		Aspirin	Atorvastatin	No	No	No	No	No	No	Yes	No	Yes	Yes	Yes
140	carvediolo	Furosemide	Both	Atorvastatin	No	No	No	No	No	No	Yes	Yes	Yes	Yes	No
141		Furosemide	Both	Atorvastatin	No	No									
142	metoprolol	Furosemide	Aspirin	Atorvastatin	No	No	Yes	No	No	No	Yes	No	No	Yes	No
143		Furosemide	Aspirin	Others	No	No	No	No	No	No	No	No	No	No	No
144		Furosemide	Both	Atorvastatin	No	No	No	Yes	No	No	No	No	No	Yes	No
145		Furosemide	Aspirin	Atorvastatin	No	Yes	Yes	No	Yes	No	Yes	No	No	Yes	Yes
146	carvediolo		Both	Atorvastatin	No	No	No	No	No	No	No	No	No	No	No
147	bisoprolol	Furosemide	Aspirin	Atorvastatin	Yes	No	No	No	No	Yes	Yes	No	Yes	Yes	Yes
148			4	Others	No	No									
149	bisoprolol		Both	Atorvastatin	No	No	No	No	Yes	Yes	Yes	No	Yes	No	Yes
150	metoprolol	Furosemide	Aspirin	Atorvastatin	No	No	No	No	No	No	Yes	No	Yes	Yes	Yes
151		Furosemide	Both	Atorvastatin	No	No	No	No	No	No	Yes	No	Yes	Yes	Yes
152	bisoprolol	Furosemide	4	Others	No	No									
153	carvediolo		Aspirin	Atorvastatin	No	No									
154	metoprolol	Dytor	4	Others	No	No	No	No	No	Yes	No	No	Yes	Yes	Yes
155		Furosemide	Both	Atorvastatin	No	No	Yes	No	No	No	Yes	No	No	Yes	Yes
156		Furosemide	Aspirin	Atorvastatin	No	Yes	Yes	No	No	No	No	No	No	Yes	No
157	bisoprolol	Dytor	Aspirin	Atorvastatin	No	No	Yes	No	Yes	No	Yes	No	No	Yes	Yes
158	carvediolo		Both	Atorvastatin	No	No	No	Yes	Yes	No	Yes	No	No	Yes	No
159		Furosemide	4	Others	No	No	Yes	No	Yes	No	Yes	No	No	Yes	No
160	metoprolol	Furosemide	4	Others	No	No	Yes	No	Yes	No	Yes	Yes	No	Yes	No
161		Furosemide	4	Others	No	No	No	No	No	No	Yes	No	Yes	Yes	Yes
162	carvediolo	Furosemide	Both	Atorvastatin	No	No	Yes	No	No	No	Yes	Yes	No	Yes	No
163	carvediolo	Dytor	Both	Atorvastatin	No	No	Yes	No	No	No	Yes	No	No	Yes	No
164		Furosemide	4	Others	No	No	Yes	No	Yes	No	Yes	Yes	No	No	No
165	metoprolol	Dytor	Both	Atorvastatin	No	No	No	No	No	No	Yes	No	No	No	No
166		Furosemide	Both	Atorvastatin	No	Yes	No	No	No	No	No	No	No	No	No

data

	HR	HS	HT	HU	HV	HW	HX	HY	HZ	IA	IB	IC	ID	IE	IF
84	No	metoprolol	Furosemide	Yes	No	No	No	No	Yes	4	Atorvastatin	No	No	No	No
85	No	metoprolol	Dytor	No	No	No	No	No	No	4	Others	Yes	Yes	No	No
86	No			Yes	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No
87	No			No	No	No	No	No	No	4	Others	Yes	No	No	No
88													No	No	Yes
89	No		Furosemide	No	No	No	No	No	No	4	Others	No	Yes	No	No
90	No	metoprolol	Furosemide	Yes	Yes	No	No	No	No	Aspirin	Atorvastatin	No	No	No	No
91	No		Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No
92	No	carvediolo	Dytor	No	No	No	No	No	No	4	Atorvastatin	No	No	No	No
93	No		Dytor	No	No	No	No	No	No	Clopidogrel	Atorvastatin	Yes	No	No	No
94	No	metoprolol		No	No	No	No	No	No	Both	Atorvastatin	No	Yes	No	No
95	No		Furosemide	No	No	No	No	No	No	Both	Atorvastatin	No	Yes	No	Yes
96													No	No	Yes
97	No		Dytor	No	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes
98	No	metoprolol	Furosemide	No	No	No	No	No	No	4	Others	Yes	No	No	No
99													No	No	Yes
100	No	metoprolol	Furosemide	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No	No	No	Yes
101													No	No	No
102	No	bisoprolol		Yes	No	No	No	No	Yes	Aspirin	Atorvastatin	No	No	No	No
103	No	carvediolo	Furosemide	No	No	No	No	No	No	4	Atorvastatin	No	Yes	No	No
104	No			No	No	No	No	No	No	Clopidogrel	Others	No	No	No	Yes
105	Yes	bisoprolol	Furosemide	Yes	No	No	No	No	Yes	Both	Atorvastatin	No	No	No	Yes
106	Yes	carvediolo	Dytor	No	No	No	No	No	No	4	Others	No	No	No	No
107	No		Furosemide	No	No	No	No	No	No	Aspirin	Rosuvastatin	No	Yes	No	No
108	No	metoprolol	Furosemide	No	No	No	No	No	No	4	Others	Yes	No	No	No
109	No	carvediolo		Yes	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes
110	No		Others	Yes	No	No	No	No	No	Clopidogrel	Atorvastatin	No	No	No	Yes
111	No	carvediolo	Furosemide	No	No	No	No	No	Yes	Aspirin	Atorvastatin	No	Yes	No	No
112	No	metoprolol	Furosemide	No	No	No	No	No	No	Clopidogrel	Simvastatin	Yes	No	No	No
113	No			No	No	No	No	No	No	Clopidogrel	Simvastatin	No	Yes	No	No
114	No		Furosemide	No	No	No	No	No	No	Clopidogrel	Simvastatin	No	No	Yes	No
115	No	metoprolol	Dytor	No	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No
116													Yes	No	No
117	No		Furosemide	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No	No	No	Yes
118	No	carvediolo	Furosemide	Yes	No	No	No	No	No	Both	Others	No	No	No	Yes
119	No		Furosemide	No	No	No	No	No	Yes	4	Others	No	Yes	No	No
120													Yes	No	No
121	No		Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No
122													Yes	No	No
123	No	metoprolol	Furosemide	No	No	No	No	No	No	4	Others	Yes	Yes	No	No
124	No		Furosemide	Yes	Yes	No	No	No	No	4	Others	No	Yes	No	No
125	No	metoprolol	Dytor	No	No	No	No	No	No	Both	Atorvastatin	No	Yes	No	No
126													Yes	No	No
127	No		Furosemide	No	No	No	No	No	No	4	Others	No	No	No	No
128	No	carvediolo		No	No	No	No	No	No	4	Others	No	No	No	No
129	No	carvediolo	Furosemide	Yes	Yes	No	No	No	No	Aspirin	Atorvastatin	No	No	No	No
130	No	bisoprolol	Furosemide	No	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes
131	No	metoprolol	Furosemide	Yes	Yes	No	No	No	No	Both	Atorvastatin	No	No	No	Yes
132													Yes	No	No
133													No	No	Yes
134	No	metoprolol	Furosemide	Yes	Yes	No	No	No	No	Aspirin	Atorvastatin	No	No	No	No
135													No	No	Yes
136	No			No	No	No	No	No	No	4	Atorvastatin	No	Yes	No	No
137	No	metoprolol	Furosemide	No	No	No	No	No	No	4	Others	Yes	No	No	No
138	No		Furosemide	No	No	No	No	No	No	Both	Others	No	Yes	No	No
139	No	carvediolo	Dytor	No	No	No	No	No	Yes	Aspirin	Atorvastatin	No	No	No	No
140	No	metoprolol	Furosemide	No	No	No	No	No	Yes	Both	Atorvastatin	No	Yes	No	No
141													Yes	No	Yes
142	No	metoprolol	Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No
143	No			No	No	No	No	No	No	4	Others	No	No	No	No
144	No		Furosemide	No	No	No	No	No	Yes	Both	Atorvastatin	No	No	No	Yes
145	No	bisoprolol	Dytor	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No
146	No			No	No	No	No	No	No	4	Others	No	No	No	Yes
147	No	others	Dytor	No	No	No	No	No	No	Aspirin	Atorvastatin	Yes	Yes	No	No
148													Yes	No	Yes
149	No	bisoprolol		No	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No
150	No	metoprolol	Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	No	No	No	No
151	Yes	metoprolol	Dytor	Yes	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes
152													No	No	Yes
153													No	No	Yes
154	No		Dytor	No	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No
155	No	metoprolol	Furosemide	Yes	Yes	No	No	No	No	Both	Atorvastatin	No	No	No	Yes
156	No		Furosemide	Yes	Yes	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No
157	No	metoprolol	Furosemide	No	No	No	No	No	No	Aspirin	Others	No	No	Yes	No
158	No	carvediolo	Furosemide	No	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes
159	No	metoprolol	Furosemide	No	No	No	No	No	No	4	Atorvastatin	No	No	No	No
160	No	metoprolol	Furosemide	No	No	No	No	No	No	Aspirin	Simvastatin	No	Yes	No	No
161	No	metoprolol	Dytor	No	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No
162	No	carvediolo	Furosemide	No	No	No	No	No	Yes	Both	Atorvastatin	No	Yes	No	No
163	No	bisoprolol	Dytor	Yes	Yes	No	No	No	No	Both	Atorvastatin	No	Yes	No	No
164	No	carvediolo		Yes	Yes	No	No	No	No	4	Atorvastatin	No	Yes	No	No
165	No	metoprolol		No	No	No	No	No	No	Both	Others	No	No	No	Yes
166	No			No	No	No	No	No	No	Both	Atorvastatin	No	Yes	No	No

data

	IG	IH	II	IJ	IK	IL	IM	IN	IO	IP	IQ	IR	IS	IT	IU
84	No	No	No	No		24172	24172	25318		1000	50490			No	69
85	No	No	No	No		59723	59723	21067	3000	2500	86290			No	27
86	No	No	No	No		33709	33709	24330	2500	3000	63539			No	42
87	No	Yes	No	No		26753	26753	76676			103429			No	66
88	No	No	No	No		39419	39419				39419			Yes	
89	No	No	No	No		88714	88714	32326	5000	5000	131040			No	38
90	No	No	No	No		20590	20590	17192			37782			No	56
91	No	No	No	No		27904	27904	17974			45878			No	42
92	No	No	No	No		23785	23785	2346			26131			No	10
93	No	No	No	No		38434	38434		2000	500	40934			No	42
94	No	No	No	No		54363	54363	43264		2000	99627			No	
95	No	No	No	No		24698	24698	17272			41970			No	12
96	No	No	No	No		43876	43876	25514	2500	5000	76890			Yes	
97	No	No	No	No		67953	67953	16428		500	84881			No	62
98	Yes	No	No	No		64138	64138	47091		500	111729			No	
99	No	No	No	No		51062	51062	19997	500	3000	74559			Yes	
100	No	No	No	No		26398	26398	26162	1000	2500	56060			No	27
101	Yes	No	No	No		297709	297709	202334			500043			Yes	
102	No	No	No	No		265876	265876	20114	7500	10000	303490			No	39
103	No	No	No	No		155319	95137	94628	30000	20000	299947			No	56
104	No	No	No	No		60041	121859	18257			78298			No	
105	No	No	No	No		118474	118474	62830			181304			No	52
106	No	No	No	No		208518	208518	286740	5000	2500	502758			No	
107	No	No	No	No		106650	106650	52426	500	2000	161576			No	55
108	Yes	No	No	No		21937	13786	12197			34134			No	30
109	No	No	No	Yes		27971	27971	19972	500	1500	49943			No	42
110	No	No	No	No		20759	20759	10226	3000	2000	35985			No	48
111	No	No	No	No		131157	131157	61877	5000	3000	201034			No	32
112	Yes	No	No	No		47377	47377	73013	2000	1000	123390			No	26
113	No	No	No	No		300018	300018	124461	10000	8000	442479			No	32
114	No	No	No	No		64310	64310	23620	800	800	89530			No	62
115	No	No	No	No		59810	59810	36037	5000	4000	104847			No	47
116	No	No	No	No		54344	54344	22223	1500	1000	79067			Yes	
117	No	No	No	No		20569	20569	9640	1000	2500	33709			No	22
118	No	No	No	No		34594	34594	7964		1000	43558			No	48
119	No	No	No	No		149398	149398	97920	2500	3500	253318			No	
120	No	No	No	No		174515	174515	18641	10000	10000	213156			Yes	
121	No	No	No	No		73020	73020	16600			89620			No	65
122	No	No	No	No		55584	55584	10067	2000	2500	70151			Yes	
123	Yes	No	No	No		66495	66495	119184			185679			No	46
124	No	No	No	No		36963	36963	18895			55858			No	53
125	No	No	No	No		51946	51946	25891	50	2000	79887			No	62
126	No	No	No	No		470390	470390	206923	15000	7000	699313			Yes	
127	No	No	No	Yes		86408	86408	18525			104933			No	8
128	No	No	No	No		47447	47447	45425	1500	5000	99372			No	26
129	No	No	No	No		31119	31119	6156			37275			No	32
130	No	No	No	No		61045	61045	217298			278343			No	66
131	No	No	No	No		23246	23246	17278			40524			No	44
132	No	No	No	No		80133	80133	47707	5000	5000	137840			Yes	
133	No	No	No	No		34324	34324	19062			53386			Yes	
134	No	No	No	No		54932	54932	63291			118223			No	62
135	No	No	No	No		23246	23246		500	2000	25746			Yes	
136	No	No	No	No		183383	183383	118380	5000	5000	311763			No	36
137	Yes	No	No	No		34303	34303	15634			49937			No	36
138	No	No	No	No		56993	56993	51986	500	1000	110479			No	68
139	No	No	Yes	No		29390	29390	312783	25000	30000	397173			No	48
140	Yes	No	No	No		101938	101938	40838	5000	5000	152776			No	78
141	No	No	No	No		34387	34387	22151			56538			Yes	
142	No	No	No	No		38465	38465	15538		1500	55503			No	
143	No	No	No	Yes		68835	68835	10282			79117			No	10
144	No	No	No	No		22085	22085	7488			29573			No	62
145	No	No	No	No		45185	45185	13392			58577			No	66
146	No	No	No	No		150851	150851	27837		1500	180188			No	45
147	No	No	No	No		183491	183491	157339		5000	345830			No	16
148	No	No	No	No		17555	17555	557			18112			Yes	
149	No	No	No	No		52665	52665	34432			87097			No	
150	No	No	No	No		65976	65976	21786	15000	10000	112762			No	36
151	No	No	No	No		110972	110972	43701	5000	2000	161673			No	38
152	No	No	No	No		108438	108438	66931	0	5000	180369			Yes	
153	No	No	No	No		186948	186948	69467	5000	5000	266415			Yes	
154	No	No	No	No		32415	32415	16370	500	1500	50785			No	56
155	No	No	No	No		117506	117506	97840			215346			No	46
156	No	No	No	No		39673	39673	28078		1000	68751			No	32
157	No	No	No	No		39607	39607	15251			54858			No	68
158	No	No	No	No		32337	32337	11080			43417			No	
159	No	No	No	Yes		44054	44054	59818		500	104372			No	46
160	No	No	No	No		49964	49964	33028			82992			No	76
161	No	No	No	No		37886	37886				37886			No	62
162	No	No	No	No		59762	59762	86400	1000	1000	148162			No	32
163	No	No	No	No		43480	43480	70343			113823			No	52
164	No	No	No	No		25601	25601	12442			38043			No	58
165	No	No	No	No		25927	25927	12523			38450			No	96
166	No	No	No	No		180432	180432	73114	10000	1500	265046			No	52

data

	IT	IU	IV	IW	IX	IY	IZ	JA	JB	JC	JD	JE	JF	JG	JH
84	No	69													
85	No	27													
86	No	42					Cardiac caus								
87	No	66		1											
88	Yes														
89	No	38										41	HEPA active	6930	
90	No	56										42	HEPA active	8316	
91	No	42										44	Minimally Ac	1386	
92	No	10										89	HEPA active	9702	
93	No	42		62	Minimally Ac	693									
94	No											41	Minimally Ac	1386	
95	No	12		21											
96	Yes														
97	No	62									Cardiac caus				
98	No											35	Minimally Ac	1386	
99	Yes														
100	No	27										72	Minimally Ac	693	
101	Yes														
102	No	39	Cardiac caus								Cardiac caus				
103	No	56					Cardiac caus								
104	No		Cardiac caus												
105	No	52									Cardiac caus				
106	No											8	HEPA active	9702	
107	No	55										63	Minimally Ac	693	
108	No	30										32	Minimally Ac	2772	
109	No	42										49	Minimally Ac	693	
110	No	48										25	Minimally Ac	1270	
111	No	32										27	HEPA active	3234	
112	No	26										22	HEPA active	8316	
113	No	32										22	HEPA active	8316	
114	No	62										66	Minimally Ac	693	
115	No	47										32	Minimally Ac	1386	
116	Yes		Cardiac caus												
117	No	22										36	HEPA active	2003	
118	No	48					Cardiac caus								
119	No											12	HEPA active	8316	
120	Yes														
121	No	65	Cardiac caus												
122	Yes														
123	No	46									Cardiac caus				
124	No	53										64	Minimally Ac	693	
125	No	62										52	Minimally Ac	2772	
126	Yes														
127	No	8										63	HEPA active	8316	
128	No	26										14	HEPA active	5544	
129	No	32					Cardiac caus								
130	No	66										44	Minimally Ac	1039	
131	No	44										38	Minimally Ac	2310	
132	Yes														
133	Yes														
134	No	62									Cardiac caus				
135	Yes														
136	No	36										18	Minimally Ac	2772	
137	No	36										60	Minimally Ac	1386	
138	No	68										47	Minimally Ac	693	
139	No	48										84	Minimally Ac	1039	
140	No	78	Cardiac caus												
141	Yes														
142	No										Cardiac caus				
143	No	10										6	HEPA active	8316	
144	No	62										80	Inactive	346	
145	No	66										43	Minimally Ac	2772	
146	No	45										36	Minimally Ac	2772	
147	No	16										22	HEPA active	5544	
148	Yes														
149	No		Cardiac caus												
150	No	36										24	HEPA active	8316	
151	No	38										49	Minimally Ac	1039	
152	Yes														
153	Yes														
154	No	56										59	Minimally Ac	693	
155	No	46										28	HEPA active	8316	
156	No	32										46	HEPA active	3234	
157	No	68										42	Minimally Ac	2772	
158	No											47	Minimally Ac	693	
159	No	46										38	Inactive	693	
160	No	76	Cardiac caus												
161	No	62										55	Minimally Ac	1039	
162	No	32										38	Minimally Ac	1386	
163	No	52										46	Minimally Ac	2310	
164	No	58										53	Minimally Ac	1270	
165	No	96	Cardiac caus												
166	No	52										46	Minimally Ac	1039	

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	JJ	JK	JL	JM	JN	JO	JP	JQ	JR	JS	JT	JU	JV	JW	JX
84	Minimally Ac	693					82	18	4	06-09-17	06-11-17	Yes	Yes	Yes	Yes
85	HEPA active	5544					52	48	1.5	06-02-17	6/23/2017	Yes	Yes	Yes	Yes
86							81	19	3.7	06-03-17	06-06-17	Yes	No	No	No
87	Minimally Ac	2772					22	78	0.7	5/28/2017	06-02-17	Yes	Yes	Yes	Yes
88							62	38	2	05-06-17	05-07-17	No	No	No	No
89	HEPA active	8316					46	54	1.3	06-10-17	6/20/2017	Yes	Yes	Yes	Yes
90	HEPA active	8316					83	17	4.2	06-04-17	06-08-17	Yes	Yes	Yes	Yes
91	Minimally Ac	1386					74	26	2.9	06-07-17	6/15/2017	Yes	Yes	Yes	Yes
92	HEPA active	9702					69	31	2.4	06-03-17	06-08-17	Yes	Yes	Yes	Yes
93							76	24	3	6/15/2017	6/25/2017	Yes	No	No	No
94							64	36	2.1	07-06-17	7/19/2017	Yes	Yes	Yes	
95							74	26	2.8	07-03-17	07-08-17	Yes	No	No	No
96							62	38	2	07-08-17	7/21/2017	No	No	No	No
97							49	51	1.4	07-09-17	7/23/2017	Yes	Yes	No	
98							32	68	0.9	07-04-17	07-10-17	Yes	Yes	Yes	
99							88	12	5.5	07-03-17	07-09-17	No	No	No	No
100							85	15	4.6	07-02-17	07-05-17	Yes	Yes	Yes	
101							31	69	0.9	7/20/2017	7/29/2017	No	No	No	No
102							58	42	1.8	8/19/2017	09-06-17	Yes	Yes	No	No
103							83	17	4.3	8/23/2017	9/22/2017	Yes	No	No	No
104							2	98	0.3	8/22/2017	8/26/2017	No	No	No	No
105							47	53	1.3	8/29/2017	09-08-17	Yes	Yes	No	No
106							79	21	3.5	8/15/2017	09-07-17	Yes	Yes	Yes	
107							73	27	2.7	7/28/2017	08-01-17	Yes	Yes	Yes	
108							53	47	1.6	08-08-17	8/15/2017	Yes	Yes	Yes	
109							60	32	2.3	8/15/2017	8/19/2017	Yes	Yes	Yes	
110							87	13	5.4	08-12-17	8/13/2017	Yes	Yes	Yes	
111							87	13	5.2	08-09-17	8/23/2017	Yes	Yes	Yes	
112							84	16	4.5	8/13/2017	8/18/2017	Yes	Yes	Yes	
113							51	49	1.5	08-08-17	9/14/2017	Yes	Yes	Yes	
114							75	25	3	8/16/2017	8/21/2017	Yes	Yes	Yes	
115							36	64	1	08-08-17	8/23/2017	Yes	Yes	Yes	
116							1	99.9	0.1	8/17/2017	8/23/2017	No	No	No	No
117							68	32	2.3	8/24/2017	8/27/2017	Yes	Yes	Yes	
118							78	22	3.8	8/27/2017	09-02-17	Yes	No	No	No
119							69	31	2.4	8/26/2017	08-07-17	Yes	Yes	Yes	
120							68	32	2.3	9/19/2017	10-12-17	No	No	No	No
121							22	78	0.7	9/20/2017	9/23/2017	No	No	No	No
122							26	74	0.7	9/27/2017	9/29/2017	No	No	No	No
123							78	22	3.3	09-05-17	9/16/2017	Yes	Yes	No	
124							73	27	2.7	9/15/2017	9/21/2017	Yes	Yes	Yes	
125							74	26	2.9	09-11-17	9/19/2017	Yes	Yes	Yes	
126							46	54	1.3	9/18/2017	10-09-17	No	No	No	No
127							48	52	1.4	9/21/2017	9/29/2017	Yes	Yes	Yes	
128							85	15	4.7	9/21/2017	9/28/2017	Yes	Yes	Yes	
129							89	11	6	9/24/2017	9/30/2017	Yes	No	No	No
130							83	17	4.2	9/24/2017	9/30/2017	Yes	Yes	Yes	
131							84	16	4.3	9/19/2017	9/21/2017	Yes	Yes	Yes	
132							55	45	1.7	10-04-17	10-10-17	No	No	No	No
133							71	29	2.5	10-03-17	10-11-17	No	No	No	No
134							64	36	2.1	10/21/2017	11-01-17	Yes	Yes	No	No
135							70	30	2.5	10/19/2017	11-02-17	No	No	No	No
136							79	21	3.5	10/30/2017	11/18/2017	Yes	Yes	Yes	
137							82	16	4.1	10/26/2017	11-04-17	Yes	Yes	Yes	
138							70	30	2.5	10/19/2017	11-02-17	Yes	Yes	Yes	
139							84	16	4.5	10/13/2017	11/29/2017	Yes	Yes	Yes	
140							49	51	1.4	10-04-17	10/19/2017	No	No	No	No
141							81	19	3.8	10-12-17	10/15/2017	No	No	No	No
142							73	27	2.7	10/16/2017	10/22/2017	Yes	Yes	No	
143							34	66	0.9	10/16/2017	10/28/2017	Yes	Yes	Yes	
144							20	80	0.6	10/30/2017	10/31/2017	Yes	Yes	Yes	
145							82	18	4.1	10/27/2017	11-03-17	Yes	Yes	Yes	
146							85	15	4.7	10/16/2017	10/21/2017	Yes	Yes	Yes	
147							86	14	5	11-02-17	11/15/2017	Yes	Yes	Yes	
148							39	61	1.1	11/22/2017	11/24/2017	No	No	No	No
149							89	11	5.8	11/14/2017	11/18/2017	No	No	No	No
150							50	50	1.4	11/24/2017	12-03-17	Yes	Yes	Yes	
151							83	17	4.2	11/16/2017	11/25/2017	Yes	Yes	Yes	
152							41	59	1.1	11/18/2017	12-02-17	No	No	No	No
153							80	20	3.7	11/29/2017	11/19/2017	No	No	No	No
154							77	23	3.2	11/28/2017	12-06-17	Yes	Yes	Yes	
155							42	58	1.2	11/27/2017	12-09-17	Yes	Yes	Yes	
156							84	16	4.3	12-06-17	12/14/2017	Yes	Yes	Yes	
157							1	99	0	11-03-17	11-09-17	Yes	Yes	Yes	
158							47	53	1.3	11-12-17	11/15/2017	Yes	Yes	Yes	
159							10	90	0.4	11-09-17	11/17/2017	Yes	Yes	Yes	
160							88	12	5.6	11-09-17	11/18/2017	No	No	No	No
161							34	66	0.9	11/16/2017	11/25/2017	Yes	Yes	Yes	
162							30	70	0.8	11-10-17	11/23/2017	Yes	Yes	Yes	
163							90	10	6.2	11/20/2017	11/25/2017	Yes	Yes	Yes	
164							86	14	5	11/17/2017	11/22/2017	Yes	Yes	Yes	
165							53	47	1.6	11/17/2017	11/24/2017	No	No	No	
166							36	64	1	11/18/2017	12-07-17	Yes	Yes	Yes	

data

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
166	179	Prospective	65	Female	No	No	20	10	10	Married	Middle scho	Semi-skilled	Rs 10796-Rs	10	Upper Lower
167	180	Prospective	85	Female	Yes	No	2	0	2	Married	Middle scho	Semi-skilled	Rs 6478-Rs	9	Upper Lower
168	181	Prospective	80	Female	No	No	7	0	7	Married	Intermediate	Skilled-work	Rs 16194-Rs	15	Lower Middl
169	182	Prospective	76	Male	No	No	10	4	6	Married	Intermediate	Semi-skilled	Rs 16194-Rs	14	Lower Middl
170	183	Prospective	49	Male	Yes	No	7	0	7	Married	Middle scho	Semi-skilled	Rs 16194-Rs	12	Lower Middl
171	184	Prospective	73	Female	Yes	No	11	0	11	Married	Intermediate	Skilled-work	Rs 10796-Rs	13	Lower Middl
172	185	Prospective	56	Female	No	Yes	10	4	6	Married	High school	Skilled-work	Rs 16194-Rs	14	Lower Middl
173	186	Prospective	56	Female	No	No	4	0	4	Married	Middle scho	Unskilled	Rs 6478-Rs	8	Upper Lower
174	187	Prospective	73	Male	No	No	4	0	4	Married	Intermediate	Skilled-work	Rs 21592 - Rs	19	Upper Middl
175	188	Prospective	65	Female	No	No	4	0	4	Married	Intermediate	Clerical Shc	Rs 10796-Rs	14	Lower Middl
176	189	Prospective	65	Male	No	No	5	0	5	Married	High school	Clerical Shc	Rs 16194-Rs	15	Lower Middl
177	190	Prospective	21	Female	No	Yes	3	3	0	Married	Graduate or	Clerical Shc	Rs 21592 - Rs	21	Upper Middl
178	191	Prospective	30	Male	Yes	No	4	2	2	Married	Intermediate	Semi-profes	Rs 16194-Rs	17	Upper Middl
179	192	Prospective	63	Female	Yes	No	8	0	8	Married	High school	Clerical Shc	Rs 16194-Rs	15	Lower Middl
180	193	Prospective	64	Female	Yes	No	4	0	4	Married	Middle scho	Semi-skilled	Rs 10796-Rs	10	Upper Lower
181	194	Prospective	66	Male	No	No	4	2	2	Married	Primary sch	Unskilled	Rs 6478-Rs	7	Upper Lower
182	195	Prospective	52	Male	Yes	No	20	4	16	Married	Middle scho	Semi-skilled	Rs 6478-Rs	9	Upper Lower
183	196	Prospective	62	Male	No	No	6	0	6	Married	Intermediate	Semi-profes	Rs 16194-Rs	17	Upper Middl
184	197	Prospective	57	Female	No	No	5	0	5	Married	High school	Clerical Shc	Rs 16194-Rs	15	Lower Middl
185	198	Prospective	70	Female	No	No	4	0	4	Married	Middle scho	Skilled-work	Rs 10796-Rs	11	Lower Middl
186	199	Prospective	77	Female	No	No	7	0	7	Married	Middle scho	Semi-skilled	Rs 6478-Rs	9	Upper Lower
187	200	Prospective	56	Male	No	No	2	0	2	Married	Middle scho	Skilled-work	Rs 10796-Rs	11	Lower Middl
188	202	Prospective	59	Male	No	Yes	4	4	0	Married	High school	Unskilled	Rs 10796-Rs	10	Upper Lower
189	203	Prospective	23	Male	No	No	7	0	7	Unmarried	High school	Skilled-work	Rs 16194-Rs	14	Lower Middl
190	204	Prospective	76	Female	No	No	7	0	7	Married	High school	Clerical Shc	Rs 16194-Rs	15	Lower Middl
191	205	Prospective	47	Female	Yes	Yes	2	0	2	Married	Middle scho	Clerical Shc	Rs 16194-Rs	14	Lower Middl
192	206	Prospective	77	Male	Yes	No	7	0	7	Married	Middle scho	Skilled-work	Rs 16194-Rs	13	Lower Middl
193	207	Prospective	67	Female	No	No	3	0	3	Married	Middle scho	Semi-skilled	Rs 6478-Rs	9	Upper Lower
194	208	Prospective	59	Male	No	No	8	0	8	Married	High school	Skilled-work	Rs 6478-Rs	11	Lower Middl
195	209	Prospective	60	Female	Yes	No	5	0	5	Married	Middle scho	Semi-skilled	Rs 6478-Rs	9	Upper Lower
196	210	Prospective	46	Female	No	No	11	8	3	Married	Intermediate	Semi-skilled	Rs 10796-Rs	12	Lower Middl
197	211	Prospective	49	Male	No	No	4	0	4	Married	Middle scho	Semi-skilled	Rs 6478-Rs	9	Upper Lower
198	212	Prospective	61	Male	Yes	No	8	5	3	Married	Intermediate	Semi-profes	Rs 21592 - Rs	21	Upper Middl
199	213	Prospective	64	Female	No	No	11	0	11	Married	High school	Clerical Shc	Rs 16194-Rs	15	Lower Middl
200	214	Prospective	62	Male	Yes	No	3	0	3	Married	High school	Semi-skilled	Rs 10796-Rs	11	Lower Middl
201	215	Prospective	63	Female	No	No	8	0	8	Married	High school	Skilled-work	Rs 6478-Rs	11	Lower Middl
202	216	Prospective	72	Female	No	No	6	0	6	Married	Intermediate	Skilled-work	Rs 16194-Rs	15	Lower Middl
203	217	Prospective	50	Female	No	No	5	0	5	Married	Intermediate	Semi-profes	Rs 16194-Rs	17	Upper Middl
204	218	Prospective	19	Female	No	No	3	0	3	Unmarried	Middle scho	Skilled-work	Rs 6478-Rs	10	Upper Lower
205	219	Prospective	75	Male	No	No	9	0	9	Married	High school	Clerical Shc	Rs 21592 - Rs	19	Upper Middl
206	220	Prospective	68	Female	No	No	6	0	6	Married	Graduate or	Semi-profes	Rs 21592 - Rs	22	Upper Middl
207	221	Prospective	71	Female	No	No	6	0	6	Married	Middle scho	Skilled-work	Rs 16194-Rs	13	Lower Middl
208	222	Prospective	64	Male	Yes	No	7	0	7	Married	Middle scho	Clerical Shc	Rs 6478-Rs	11	Lower Middl
209	223	Prospective	56	Male	No	No	4	0	4	Married	Intermediate	Skilled-work	Rs 6478-Rs	12	Lower Middl
210	224	Prospective	56	Female	No	No	13	0	13	Married	Primary sch	Semi-skilled	Rs 10796-Rs	9	Upper Lower
211	225	Prospective	68	Female	Yes	No	6	0	6	Married	Middle scho	Unskilled	Rs 10796-Rs	9	Upper Lower
212	226	Prospective	39	Female	No	No	15	0	15	Married	Intermediate	Skilled-work	Rs 16194-Rs	15	Lower Middl
213	227	Prospective	51	Male	No	No	32	0	32	Married	Middle scho	Semi-skilled	Rs 6478-Rs	9	Upper Lower
214	228	Prospective	37	Female	No	No	29	0	29	Married	High school	Clerical Shc	Rs 21592 - Rs	19	Upper Middl
215	229	Prospective	48	Female	No	No	13	0	13	Married	Intermediate	Clerical Shc	Rs 16194-Rs	16	Upper Middl
216	230	Prospective	64	Female	No	No	1	8	3	Married	Illiterate	Semi-skilled	Rs 10796-Rs	8	Upper Lower
217	231	Prospective	42	Male	No	No	9	4	5	Married	Intermediate	Skilled-work	Rs 16194-Rs	15	Lower Middl
218	232	Prospective	65	Female	Yes	No	5	0	5	Married	Middle scho	Semi-skilled	Rs 6478-Rs	9	Upper Lower
219	233	Prospective	34	Male	No	No	9	0	9	Married	High school	Clerical Shc	Rs 16194-Rs	15	Lower Middl
220	234	Prospective	67	Male	No	No	4	0	4	Married	High school	Unskilled	Rs 10796-Rs	10	Upper Lower
221	235	Prospective	45	Male	No	No	6	0	6	Married	Middle scho	Semi-skilled	Rs 10796-Rs	10	Upper Lower
222	236	Prospective	63	Male	No	No	8	0	8	Married	Middle scho	Unskilled	Rs 16194-Rs	11	Lower Middl
223	237	Prospective	79	Female	Yes	No	7	0	7	Married	High school	Semi-skilled	Rs 10796-Rs	11	Lower Middl
224	238	Prospective	75	Female	No	No	11	0	11	Married	Primary sch	Unemployec	Rs 2181-Rs 6	5	
225	239	Prospective	60	Female	No	No	10	0	10	Married	High school	Unemployec	Rs 2180 and	6	Upper Lower
226	241	Prospective	80	Male	Yes	No	7	9	8	Married	Illiterate	Semi-skilled	Rs 2181-Rs 6	6	Upper Lower
227	242	Prospective	58	Male	No	No	5	0	5	Married	High school	Semi-skilled	Rs 2181-Rs 6	9	Upper Lower
228	243	Prospective	62	Female	No	No	14	0	14	Married	Middle scho	Skilled-work	Rs 10796-Rs	11	Lower Middl
229	244	Prospective	60	Female	Yes	No	15	0	15	Married	Primary sch	Unskilled	Rs 6478-Rs	7	Upper Lower
230	245	Prospective	40	Female	Yes	No	12	0	12	Married	High school	Unskilled	Rs 6478-Rs	9	Upper Lower
231	246	Prospective	64	Female	Yes	No	6	0	6	Married	Middle scho	Semi-skilled	Rs 6478-Rs	9	Upper Lower
232	247	Prospective	47	Male	Yes	No	6	0	6	Married	Graduate or	Profession	Rs 43184 and	28	Upper
233	248	Prospective	47	Female	No	No	7	0	7	Married	Middle scho	Clerical Shc	Rs 10796-Rs	12	Lower Middl
234	249	Prospective	32	Female	No	No	6	0	6	Married	Primary sch	Semi-skilled	Rs 2180 and	6	Upper Lower
235	251	Prospective	54	Male	No	No	13	0	13	Married	Intermediate	Clerical Shc	Rs 10796-Rs	14	Lower Middl
236	252	Prospective	69	Male	No	No	10	7	3	Married	High school	Skilled-work	Rs 6478-Rs	11	Lower Middl
237	253	Prospective	73	Male	No	No	7	0	7	Married	Middle scho	Unskilled	Rs 10796-Rs	9	Upper Lower
238	254	Prospective	66	Female	No	No	9	0	9	Married	High school	Unemployec	Rs 16194-Rs	11	Lower Middl
239	255	Prospective	57	Male	Yes	No	8	0	8	Married	Intermediate	Clerical Shc	Rs 16194-Rs	16	Upper Middl
240	256	Prospective	55	Male	Yes	No	2	0	2	Married	Primary sch	Semi-skilled	Rs 10796-Rs	9	Upper Lower
241	257	Prospective	57	Female	No	No	7	0	7	Married	Middle scho	Semi-skilled	Rs 10796-Rs	10	Upper Lower
242	258	Prospective	56	Male	No	No	7	0	7	Married	Intermediate	Clerical Shc	Rs 16194-Rs	16	Upper Middl
243	259	Prospective	67	Male	Yes	No	13	0	13	Married	High school	Semi-profes	Rs 16194-Rs	16	Upper Middl
244	260	Prospective	68	Female	Yes	No	6	0	6	Married	Intermediate	Clerical Shc	Rs 21592 - Rs	20	Upper Middl
245	261	Prospective	47	Male	No	No	10	2	8	Married	Primary sch	Semi-skilled	Rs 6478-Rs	8	Upper Lower
246	262	Prospective	80	Male	No	No	2	0	2	Married	Intermediate	Semi-profes	Rs 16194-Rs	17	Upper Middl
247	263	Prospective	61	Male	No	No	6	4	2	Married	Intermediate	Clerical Shc	Rs 21592 - Rs	20	Upper Middl
248	264	Prospective	52	Female	No	No	7	0	7	Married	Intermediate	Clerical Shc	Rs 10796-Rs	14	Lower Middl

data

	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD
166	Yes	5	4	Yes	5	4	No		No		No		No		No
167	Yes	1	4	Yes	1	4	No		Yes	30	No		No		Yes
168	Yes	3	4	Yes	3	4	No		No		No		No		Yes
169	No			Yes	3	3	No		Yes	4	No		No		Yes
170	No			Yes	1	4	No		No		No		No		No
171	No			Yes	10	4	No		Yes	10	No		No		Yes
172	No			Yes	7	4	No		No		No		No		No
173	Yes	20	4	No			No		No		No		No		No
174	No			Yes	4	4	No		No		No		No		Yes
175	Yes	1	4	Yes	1	4	No		No		No		No		No
176	No			Yes	14	4	No		No		No		No		No
177	No			Yes	1	4	No		No		No		Yes	1	No
178	No			Yes	30	4	Yes	30	No		No		No		No
179	No			Yes	4	4	No		No		No		No		Yes
180	No			Yes	3	4	No		No		No		No		No
181	No			Yes	270	4	No		Yes	30	No		No		No
182	No			Yes	1	4	No		No		No		No		Yes
183	No			Yes	20	4	No		Yes	20	No		No		No
184	No			Yes	1	4	No		No		No		No		No
185	Yes	2	3	Yes	1	4	No		Yes	30	No		No		Yes
186	No			Yes	180	2	No		No		No		No		No
187	Yes	1	4	No			No		No		No		No		No
188	No			Yes	2	4	No		No		No		No		No
189	No			Yes	10	4	No		No		No		No		No
190	Yes	10	4	Yes	10	4	No		Yes	2	No		No		No
191	No			Yes	180	4	Yes	30	Yes	7	No		No		No
192	Yes	1	4	Yes	1	4	No		No		No		No		No
193	No			Yes	7	4	No		No		No		No		No
194	No			Yes	1	4	No		No		No		No		No
195	No			Yes	1	4	No		No		No		No		No
196	Yes	1	3	Yes	2	4	No		No		No		No		No
197	No			Yes	2	4	No		Yes	30	No		No		No
198	Yes	2	4	Yes	2	4	No		Yes	2	No		No		No
199	Yes	10	4	Yes	10	4	Yes	10	No		No		No		Yes
200	Yes	1	4	No			No		No		Yes	1	No		No
201	Yes	1	4	Yes	30	4	No		No		No		No		No
202	No			Yes	30	4	No		Yes	3	No		No		No
203	Yes	3	4	No			No		No		No		No		Yes
204	No			Yes	180	4	Yes	180	Yes	14	No		No		Yes
205	No			Yes	1	4	Yes	15	Yes	15	No		No		Yes
206	No			Yes	1	4	No		No		No		No		No
207	No			Yes	30	3	Yes	30	No		No		No		No
208	Yes	1	4	Yes	1	4	No		No		No		No		Yes
209	No			Yes	2	4	No		No		No		No		Yes
210	Yes	60	3	No			No		No		No		No		No
211	Yes	1	4	Yes	1	4	No		Yes	7	No		No		Yes
212	Yes	1	4	Yes	7	4	Yes	7	Yes	7	Yes	7	No		Yes
213	No			Yes	90	3	Yes	60	Yes	221	No		Yes	60	Yes
214	No			Yes	180	4	Yes	4	No		No		No		Yes
215	No			Yes	3	4	No		No		Yes	1	No		Yes
216	No			Yes	20	4	Yes	20	Yes	10	Yes	20	No		Yes
217	No			Yes	1	4	Yes	1	No		Yes	2	No		Yes
218	No			Yes	180	4	No		Yes	180	No		No		Yes
219	No			Yes	10	4	No		Yes	10	No		No		Yes
220	No			Yes	15	4	No		No		No		No		Yes
221	No			Yes	30	4	No		Yes	90	Yes	2	No		Yes
222	No			Yes	15	4	No		No		No		No		Yes
223	Yes	2	4	Yes	2	4	No		Yes	15	No		No		Yes
224	No			Yes	1	4	No		Yes	30	No		No		Yes
225	No			Yes	10	4	No		Yes	30	No		No		Yes
226	Yes	1	4	Yes	7	4	Yes	1	Yes	7	Yes	2	No		Yes
227	No			Yes	3	4	Yes	3	Yes	7	No		No		Yes
228	No			Yes	2	4	No		Yes	7	Yes	2	No		Yes
229	No			Yes	180	4	Yes	30	Yes	180	No		No		Yes
230	No			Yes	180	4	Yes	120	No		No		No		Yes
231	No			Yes	3	4	Yes	3	Yes	15	No		No		Yes
232	Yes	4	4	No			No		No		No		No		Yes
233	No			Yes	7	3	Yes	7	Yes	7	No		No		Yes
234	No			Yes	5	4	Yes	3	Yes	5	Yes	3	No		Yes
235	No			Yes	30	3	No		No		No		No		Yes
236	No			Yes	2	4	No		Yes	90	Yes	1	No		Yes
237	Yes	1	4	Yes	1	4	No		No		No		No		No
238	Yes	1	4	Yes	1	4	No		Yes	7	Yes	1	No		Yes
239	No			Yes	1	4	No		Yes	90	No		No		No
240	No			Yes	1	4	No		No		Yes	1	No		Yes
241	No			Yes	10	4	Yes	2	Yes	10	No		No		No
242	No			Yes	3	4	No		Yes	3	No		No		No
243	No			Yes	7	4	No		Yes	7	No		No		Yes
244	No			Yes	3	4	No		No		No		No		Yes
245	No			Yes	30	4	No		Yes	10	No		No		Yes
246	No			Yes	30	3	No		Yes	30	No		No		No
247	No			Yes	1	4	No		No		No		No		No
248	No			Yes	30	3	No		No		No		No		Yes

data

	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS
166		No		No		No		No		500	4	2	C	66	60
167	1	No		No		No		No		250	4	3	C	103	150
168	3	No		No		No		No		150	4	3	C	90	130
169	1	No		No		No		No		200	3	2	C	98	160
170		No		No		No		No		500	4	2	C	98	230
171	10	No		No		No		No		10	4	3	C	104	98
172		No		Yes	150	No		No		250	4		D	124	120
173		No		No		No		No		500	4	2	C	62	140
174	1	No		No		Yes	4	No		2000	4	3	C	104	120
175		No		No		No		No		250	4	2	C	112	100
176		No		No		Yes	7	Yes	7	500	4	2	C	126	140
177		No		No		No		Yes	10	2000	4		D	120	90
178		No		No		No		No		250	4	3	C	112	96
179	4	No		No		No		No		5	4	2	C	44	140
180		No		Yes	3	Yes	3	No		50	4	3	C	74	100
181		No		No		Yes	10	Yes	2	400	4	4	D	120	80
182	121	Yes		No		No		No		500	4	3	C	120	120
183		No		No		No		No		150	4	3	C	110	110
184		No		No		No		No		250	4	2	C	140	100
185	1	No		No		No		No		150	4	3	C	130	110
186		No		No		No		No		50	2	2	C	65	100
187		No		No		No		No		500	4	2	C	136	110
188		No		No		Yes	5	Yes	7	1000	4		D	98	220
189		No		No		No		Yes	3	150	4	2	C	96	120
190		No		No		No		No		50	4	2	C	88	100
191		No		No		No		No		100	4		D	102	140
192		No		Yes	1	No		No		100	4	2	C	102	140
193		No		Yes	30	No		No		5043	3	1	B	126	160
194		No		No		No		Yes	1	100	4	3	C	100	120
195		No		No		Yes	3	Yes	3	500	3	2	C	130	150
196		No		No		Yes	7	Yes	1	1000	4	2	C	124	140
197		No		No		No		No		150	4	3	C	110	110
198		No		Yes	2	No		Yes	120	50	4	2	C	142	90
199	10	No		No		No		No		500	4	2	C	86	130
200		No		No		No		No		3000	4	2	C	108	100
201		Yes	3	No		No		No		100	4	2	C	146	90
202		No		Yes	30	No		No		500	4	3	C	92	100
203	3	No		No		Yes	3	No		50	4	2	C	104	140
204	14	No		No		Yes	14	No		750	4	2	C	117	100
205	1	No		Yes	15	Yes	1	No		1000	4	2	C	97	140
206		No		No		No		Yes	1	500	4	2	C	144	170
207		No		Yes	30	Yes	30	No		100	4	2	C	84	130
208	1	No		No		No		No		500	4	2	C	70	130
209	2	No		No		Yes	2	No		150	4	2	C	96	110
210		No		No		No		No		75	4	2	C	118	180
211	1	No		Yes	7	No		No		5	4	2	C	102	190
212	7	No		Yes	7	Yes	7	No		500	4	2	C	124	90
213	90	No		Yes	60	Yes	60	No		10	4	3	C	124	90
214	4	No		Yes	7	Yes	5	No		200	4	2	C	106	0
215	1	No		No		Yes	1	No		10	4	2	C	100	160
216	20	No		Yes	20	Yes	30	Yes	20	20	4	2	C	134	110
217	1	Yes	1	Yes	1	No		No		500	4	2	C	90	90
218	180	Yes	180	No		No		No		50	4	3	C	100	150
219	20	No		Yes	7	Yes	7	No		100	4	2	C	170	90
220	14	No		No		No		Yes	1	500	4	3	C	104	110
221	30	No		No		No		No		250	4	3	C	88	120
222	15	No		Yes	15	Yes	3	No		10	4	3	C	100	150
223	2	No		Yes	2	No		No		15	4	2	C	70	140
224	1	No		Yes	1	No		Yes	1	10	4	3	C	80	140
225	7	No		No		Yes	7	No		10	4	3	C	110	180
226	1	No		Yes	1	No		Yes	1	100	4	3	C	161	100
227	3	No		Yes	3	Yes	3	Yes	10	50	4	3	C	120	180
228	2	No		Yes	2	Yes	2	Yes	2	1000	4	3	C	100	180
229	180	No		Yes	180	Yes	30	No		10	4	3	C	136	100
230	120	Yes	120	Yes	120	Yes	180	No		50	4	3	C	80	170
231	3	No		No		No		No		25	4	3	C	112	170
232	4	No		Yes	4	Yes	4	Yes	4	250	4	2	C	74	70
233	7	No		Yes	7	No		No		50	3	2	C	120	100
234	3	Yes	2	Yes	3	Yes	5	Yes	7	1500	4	2	C	28	130
235	1	No		No		No		Yes	90	200	3	2	C	90	90
236	1	No		Yes	1	No		No		1000	4	2	C	130	200
237		No		No		Yes	1	Yes	1	500	4	2	C	88	80
238	1	No		Yes	1	No		Yes	1	250	4	3	C	120	210
239		No		Yes	90	No		No		50	4	2	C	60	100
240	1	No		No		No		No		3000	4	2	C	108	130
241		No		No		No		No		500	4	2	C	140	90
242		No		Yes	3	No		No		50	4	2	C	120	160
243	10	No		No		Yes	10	No		500	4	2	C	132	200
244	3	No		No		No		Yes	3	10	4	2	C	128	130
245	30	Yes	30	No		Yes	30	No		1500	4	2	C	112	180
246		No		Yes	30	No		No		200	3	3	C	88	110
247		No		No		No		No		500	4	2	C	13	180
248	30	No		No		Yes	10	Yes	2	100	4	3	C	110	160

data

	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG	BH
166	40	26	95	15	Yes	8	0.96	162	52	19.8	Yes	No	No	No	No
167	80	38	91	15	No	0	0.96	162	63	24	Yes	No	No	No	No
168	80	36	89	15	No	0	0.93	145	55	26.2	No	No	No	No	No
169	80	40	82	15	Yes	3	0.98	163	65	24.5	Yes	No	No	No	No
170	100	22	98	15	No	0	1.02	170	74	25.6	Yes	No	No	No	No
171	60	26	98	15	No	0	0.98	165	72	26.4	No	No	No	No	No
172	70	32	96	15	No	0	0.96	145	52	24.7	Yes	No	No	No	No
173	90	18	98	15	No	0	0.95	167	74	26.5	No	No	No	No	No
174	80	32	97	15	No	0	0.96	168	72	25.5	Yes	No	No	No	No
175	60	40	70	15	No	0	0.9	162	48	18.3	No	No	No	No	No
176	80	36	88	15	No	0	0.93	172	72	24.3	Yes	No	No	No	No
177	60	40	66	15	No	0					Yes	No	No	No	No
178	60	22	98	15	No	0	0.95	160	72	28.1	No	No	No	No	No
179	100	44	85	15	No	0	1.1	163	65	24.5	No	No	No	No	No
180	70	28	95	15	No	0	0.97	168	56	19.8	No	No	No	No	No
181	0	38	80	15	No	0	0.95	166	72	26.1	No	No	No	No	No
182	80	22	95	15	No	0	0.95	166	76	27.6	No	No	No	No	No
183	70	32	92	15	No	0	0.97	175	69	22.5	No	No	No	No	No
184	60	42	65	15	No	0	1.02	165	78	28.7	Yes	No	No	No	No
185	70	32	93	15	No	0	0.97	177	85	27.1	Yes	No	No	No	No
186	60	26	96	15	No	0	1.05	165	45	16.5	No	No	No	No	No
187	70	30	99	15	No	0	1.02	172	86	29.1	No	No	No	No	No
188	120	22	88	15	No	0		179	82	25.6	No	No	No	No	No
189	60	22	100	15	No	0	1.1	168	75	26.6	Yes	Yes	No	No	No
190	60	24	98	15	No	0	1.05	165	72	26.4	No	No	No	No	No
191	70	42	85	15	No	0		163	40	15.1	No	No	No	No	No
192	70	42	89	15	No	0	1.02	177	68	21.7	No	No	No	No	No
193	60	40	99	15	No	0	1.02	165	60	22	No	No	No	No	No
194	80	22	92	15	No	0	0.93	165	78	28.7	Yes	Yes	No	No	No
195	90	22	95	15	No	0	0.93	147	75	34.7	No	No	No	No	No
196	90	30	95	15	Yes	5	1.1	152	42	18.2	No	No	No	No	No
197	70	30	97	15	No	0	0.97	175	80	26.1	No	No	No	No	No
198	60	40	82	15	No	0	1.1	170	82	28.4	No	No	No	No	No
199	100	40	90	15	No	0	1.05	159	70	27.7	No	No	No	No	No
200	60	24	98	15	No	0	0.98	180	82	25.3	No	No	No	No	No
201	50	40	89	15	No	0	0.97	168	72	25.5	No	No	No	No	No
202	70	30	88	15	No	0	0.96	168	55	19.5	No	No	No	No	No
203	90	46	74	15	No	0	0.96	145	52	24.7	No	No	No	No	No
204	70	24	93	15	No	0	1.22	148	42	19.2	Yes	No	No	Yes	No
205	60	34	90	15	No	0	1.01	162	72	27.4	No	No	No	No	No
206	100	20	93	15	No	0	0.96	168	52	18.4	Yes	No	No	No	No
207	80	28	96	15	No	0	1.01	168	52	18.4	Yes	No	No	No	No
208	70	22	96	15	No	0	1.02	167	55	19.7	Yes	No	No	No	No
209	80	30	89	15	No	0	0.97	172	80	27	No	No	No	No	No
210	100	24	97	15	No	0	0.94	168	83	29.4	No	No	No	No	No
211	100	28	96	15	No	0	0.93	168	68	24.1	Yes	No	No	No	No
212	60	26	91	15	No	0					Yes	No	No	No	No
213	60	38	92	15	No	0	1.01	175	75	24.5	No	No	No	No	No
214	0	32	95	15	No	0	0.92	162	48	18.3	No	No	No	No	No
215	60	32	90	15	No	0	1.03	168	75	26.6	No	No	No	No	No
216	80	44	74	15	Yes	6	1.06	157	50	20.3	No	No	No	No	No
217	60	48	72	5	No	0		162	55	21	No	No	No	No	No
218	60	26	96	15	No	0	1.06	155	45	18.7	Yes	No	No	No	No
219	60	32	86	15	No	0	0.94	180	92	28.4	Yes	No	No	No	No
220	70	22	98	15	No	0		177	82	26.2	Yes	No	No	No	No
221	80	30	94	15	No	0	1.03	166	82	29.8	Yes	No	No	No	No
222	90	22	98	11	No	0		176	82	26.5	Yes	No	No	No	No
223	80	36	80	15	No	0		168	86	30.5	Yes	No	No	No	No
224	60	24	98	15	No	0	0.98	162	65	24.8	No	No	No	No	No
225	100	26	98	15	No	0		158	58	23.2	No	No	No	No	No
226	50	22	99	15	Yes	8		171	65	22.2	No	No	No	No	No
227	110	40	95	15	No	0	0.96	170	89	30.8	Yes	No	No	No	No
228	60	42	85	15	No	0		185	110	32.1	Yes	No	No	No	No
229	60	46	76	15	No	0		158	58	23.2	Yes	No	No	No	No
230	100	22	97	15	No	0	1.02	142	55	27.3	Yes	No	No	No	No
231	90	30	90	15	No	0	0.96	161	64	24.7	No	No	No	No	No
232	40	24	97	15	No	0	1.09	167	73	26.2	No	Yes	No	No	No
233	60	22	98	15	No	0	0.99	150	56	24.9	Yes	No	No	No	No
234	80	24	98	15	No	0					No	No	No	No	No
235	60	16	92	15	No	0	1.03	178	67	21.1	No	Yes	No	No	No
236	140	44	75	15	Yes	4	0.96	176	70	22.6	No	No	No	No	No
237	40	20	90	14	No	0	0.95	172	77	26	No	No	No	No	No
238	110	50	40	15	No	0	0.95	152	76	32.9	No	No	No	No	No
239	70	34	90	15	No	0	0.98	182	88	26.6	No	No	No	No	No
240	80	40	76	15	No	0	0.93	175	89	29.1	Yes	No	No	No	No
241	60	16	96	15	No	0	1.01	169	66	23.1	No	No	No	No	No
242	100	30	85	15	No	0	1.03	172	88	29.2	Yes	No	No	No	No
243	130	40	90	15	No	0	0.94	168	88	31.2	Yes	No	No	No	No
244	80	28	98	15	No	0	1.02	168	62	22	No	No	No	No	No
245	120	36	89	15	No	0	1.03	178	82	25.9	No	No	No	No	No
246	60	20	96	15	No	0	1.04	178	82	25.9	No	No	No	No	No
247	110	36	82	15	No	0	0.93	180	70	21.6	No	No	No	No	No
248	90	36	96	15	No	0	1.02	158	67	26.8	Yes	No	No	No	No

data

	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV	BW
166	No	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
167	Yes	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
168	Yes	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
169	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
170	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
171	Yes	Yes	Yes	No	No	Coarse crepi	No	No	No	No	No	No	No	No	No
172	Yes	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
173	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
174	No	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
175	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
176	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
177	No	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
178	Yes	No	Yes	No	No		No	No	No	No	No	No	No	No	No
179	No	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
180	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
181	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
182	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
183	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
184	No	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
185	Yes	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
186	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
187	No	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
188	No	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
189	No	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
190	Yes	Yes	No	Yes	No	Coarse crepi	No	No	No	No	No	No	No	No	No
191	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
192	No	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
193	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
194	No	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
195	No	No	No	No	No		No	No	No	No	No	No	No	No	No
196	Yes	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
197	Yes	No	No	No	No		No	No	No	No	No	No	No	No	No
198	No	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
199	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
200	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
201	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
202	Yes	No	No	No	Yes	Basal fine cr	No	No	No	No	Yes	No	No	No	No
203	No	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
204	Yes	Yes	No	No	Yes	Basal fine cr	Yes	No	No	No	No	No	No	No	No
205	Yes	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
206	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
207	No	No	No	No	Yes	Basal fine cr	No	No	No	No	Yes	No	No	No	No
208	No	Yes	No	No	No		No	No	No	No	No	No	No	No	No
209	No	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
210	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
211	Yes	No	Yes	No	No	Coarse crepi	No	No	No	No	No	No	No	No	No
212	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	Yes
213	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
214	No	No	No	No	Yes	Basal fine cr	Yes	No	No	No	No	No	No	No	No
215	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
216	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
217	No	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
218	Yes	Yes	Yes	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
219	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	Yes
220	No	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
221	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	Yes	No	No	No	No
222	No	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
223	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
224	Yes	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
225	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
226	No	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
227	Yes	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
228	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
229	Yes	Yes	No	No	Yes	Basal fine cr	Yes	No	No	No	No	No	No	No	No
230	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
231	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
232	No	Yes	Yes	No	No		No	No	No	No	No	No	No	No	No
233	Yes	Yes	No	No	No		No	No	No	No	No	No	No	No	No
234	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
235	No	Yes	No	No	No		No	No	No	No	No	No	No	No	No
236	No	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
237	No	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
238	Yes	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
239	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
240	No	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
241	No	Yes	No	No	No		No	No	No	Yes	No	No	No	No	Yes
242	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
243	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	Yes
244	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No	No
245	Yes	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
246	Yes	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
247	No	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No
248	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No	No

data

	BX	BY	BZ	CA	CB	CC	CD	CE	CF	CG	CH	CI	CJ	CK	CL
166	No	No		No		No	No	No	No		No	No	No	No	No
167	No	No		Yes	5	No	No	No	No		No	No	No	No	No
168	No	Yes	10	No		No	No	No	No		No	No	No	No	No
169	No	Yes	10	Yes	7	No	No	No	No		No	No	No	No	Yes
170	No	Yes	12	Yes	10	No	No	No	No		Yes	No	No	No	No
171	No	Yes	5	No		No	No	No	No		Yes	No	No	No	No
172	No	No		No		No	No	No	No		No	No	No	No	Yes
173	No	Yes	2	Yes	2	No	No	No	No		No	No	No	No	No
174	Yes	Yes	10	No		No	Yes	No	No		No	No	No	No	No
175	No	Yes	10	Yes	10	No	No	No	No		No	No	No	No	No
176	No	Yes	15	Yes	1	No	No	No	No		Yes	No	Yes	Yes	No
177	No	No		No		No	No	No	No		No	No	No	No	No
178	No	No		No		No	No	No	No		No	No	No	No	No
179	No	No		No		No	No	No	Yes	IHD	No	No	No	No	No
180	No	Yes	10	Yes	10	No	No	No	No		No	No	No	No	No
181	No	No		No		No	No	No	No		No	No	No	No	No
182	No	No		No		No	Yes	No	Yes	IHD	No	No	No	No	No
183	No	Yes	20	No		No	No	No	No		No	No	No	No	No
184	No	Yes	7	Yes	7	No	No	No	No		No	No	No	No	No
185	No	Yes	15	Yes	15	No	No	No	No		No	No	No	No	No
186	No	No		Yes	5	No	No	No	No		No	No	No	No	No
187	No	Yes	2	Yes	2	No	No	No	No		No	No	No	No	No
188	No	Yes	3	Yes	3	No	No	No	No		No	No	No	No	No
189	No	No		No		No	No	No	No		No	No	No	No	No
190	No	No		No		No	No	No	Yes	DCM	No	No	No	No	No
191	No	Yes	5	Yes	5	No	No	No	Yes	IHD	No	No	No	No	No
192	No	Yes	10	Yes	7	Yes	Yes	Yes	Yes	IHD	No	No	No	No	No
193	No	Yes	25	Yes	25	No	No	No	No		No	No	No	Yes	No
194	No	No		No		No	No	No	No		No	No	No	No	No
195	No	Yes	11	Yes	11	Yes	Yes	Yes	Yes	IHD	No	No	No	No	No
196	No	No		No		No	No	No	No		No	No	No	No	No
197	No	Yes	5	Yes	3	No	No	No	No		No	No	No	No	No
198	No	Yes	20	Yes	20	Yes	Yes	Yes	Yes	IHD	No	No	No	No	No
199	No	Yes	5	Yes	20	No	No	No	No		No	No	No	No	Yes
200	No	No		No		No	No	No	No		No	No	No	No	No
201	No	Yes	1	No		No	No	No	No		No	No	No	No	No
202	No	No		Yes	5	No	No	No	No		No	No	No	No	No
203	No	Yes	5	Yes	5	No	No	No	No		No	No	No	No	No
204	No	No		No		No	No	No	Yes	RHD	No	No	No	No	No
205	No	No		Yes	15	No	Yes	Yes	Yes	IHD	No	No	Yes	No	Yes
206	No	Yes	10	Yes	10	No	No	No	No		No	No	No	No	No
207	No	No		No		No	No	No	No		No	No	No	No	No
208	No	No		Yes	5	Yes	Yes	Yes	Yes	IHD	Yes	No	No	No	No
209	No	Yes	5	No		Yes	Yes	No	No		No	No	No	No	No
210	No	Yes	10	No		No	No	No	No		No	No	No	No	No
211	No	Yes	15	Yes	7	No	No	No	No		No	No	No	No	No
212	No	No		No		No	No	No	No		No	No	No	No	No
213	No	No		No		No	No	No	No		No	No	No	No	No
214	No	Yes	2	No		No	No	No	Yes	RHD	No	No	No	No	No
215	No	Yes	1	Yes	1	No	No	No	No		No	No	No	No	No
216	No	Yes	2	Yes	2	No	No	No	No		No	No	No	No	No
217	No	Yes	1	No		No	No	No	Yes	RHD	No	No	No	No	No
218	No	Yes	10	Yes	10	No	No	No	No		No	No	No	No	No
219	No	Yes	10	Yes	1	No	No	No	Yes	IHD	Yes	No	No	No	No
220	No	Yes	7	Yes	7	Yes	Yes	Yes	Yes	IHD	No	No	No	No	No
221	Yes	Yes	15	No		No	No	No	No		Yes	No	No	No	No
222	No	Yes	15	Yes	15	Yes	Yes	Yes	Yes	IHD	No	No	No	No	No
223	No	Yes	25	Yes	20	Yes	Yes	Yes	Yes	DCM	No	No	No	No	No
224	No	Yes	30	Yes	30	Yes	Yes	Yes	Yes	IHD	No	No	No	No	Yes
225	No	No		Yes	1	No	No	No	No		No	No	No	No	Yes
226	No	Yes	4	Yes	4	No	Yes	Yes	Yes	IHD	Yes	No	No	No	No
227	No	Yes	1	No		No	No	No	No		No	No	No	No	No
228	No	Yes	7	Yes	7	No	No	No	No		No	No	No	No	No
229	No	No		No		No	No	No	Yes	RHD	No	No	No	No	No
230	No	No		No		No	Yes	No	Yes	IHD	Yes	No	No	No	No
231	No	Yes	20	Yes	10	Yes	No	No	No		Yes	No	No	No	No
232	No	Yes	1	Yes	1	Yes	Yes	Yes	Yes	IHD	No	No	No	No	No
233	No	No		No		No	No	Yes	No		No	No	No	No	No
234	No	No		No		No	No	No	No		No	No	No	No	No
235	No	No		No		No	No	No	No		No	No	No	No	No
236	No	Yes	2	Yes	1	Yes	No	No	No		No	No	No	No	No
237	No	No		Yes	1	No	Yes	No	No		No	No	No	No	No
238	No	Yes	25	Yes	15	Yes	Yes	Yes	Yes	IHD	No	No	No	No	No
239	No	No		Yes	3	No	No	No	No		Yes	No	No	No	No
240	No	No		No		No	No	No	No		No	No	No	No	No
241	No	No		No		No	No	No	No		No	No	No	No	No
242	No	Yes	13	Yes	5	No	No	No	No		No	No	No	No	No
243	Yes	No		No		No	No	No	No		No	No	No	No	No
244	No	Yes	15	Yes	15	Yes	Yes	Yes	Yes	IHD	Yes	No	No	No	No
245	No	Yes	5	No		No	No	No	No		No	No	No	No	No
246	No	Yes	30	No		No	No	No	No		No	No	No	No	No
247	No	Yes	15	Yes	5	Yes	Yes	No	Yes	IHD	No	No	No	No	No
248	Yes	Yes	2	Yes	2	No	No	No	No		Yes	No	No	No	No

data

	CM	CN	CO	CP	CQ	CR	CS	CT	CU	CV	CW	CX	CY	CZ	DA
166	No	No				No		No		No		No	No		
167	No	No				No		No		No		No	No		
168	No	No				No		Yes	10	No		No	No		
169	No	No				No		No		No		No	No		
170	No	No				No		No		No		No	No		
171	No	No				No		No		No		No	No		
172	No	No				No		No		No		No	No		
173	No	No				No		No		No		No	No		
174	No	No				No		No		No		No	No		
175	No	No				No		No		No		No	No		
176	No	No				No		No		No		No	No		
177	Yes	No				No		No		No		No	No		
178	No	No				No		No		No		No	No		
179	No	No				No		No		No		No	No		
180	No	No				No		No		No		No	No		
181	No	No				No		No		No		No	No		
182	No	No				No		No		No		No	No		
183	No	No				No		Yes	10	No		No	No		
184	No	No				No		No		No		No	No		
185	No	No				No		No		No		No	No		
186	No	No				No		No		No		No	No		
187	No	No				Yes	10	No		No		No	No		
188	No	No				Yes	10	No		Yes	10	No	No		
189	No	No				No		No		No		No	No		
190	No	No				No		No		No		No	No		
191	No	No				No		No		No		No	No		
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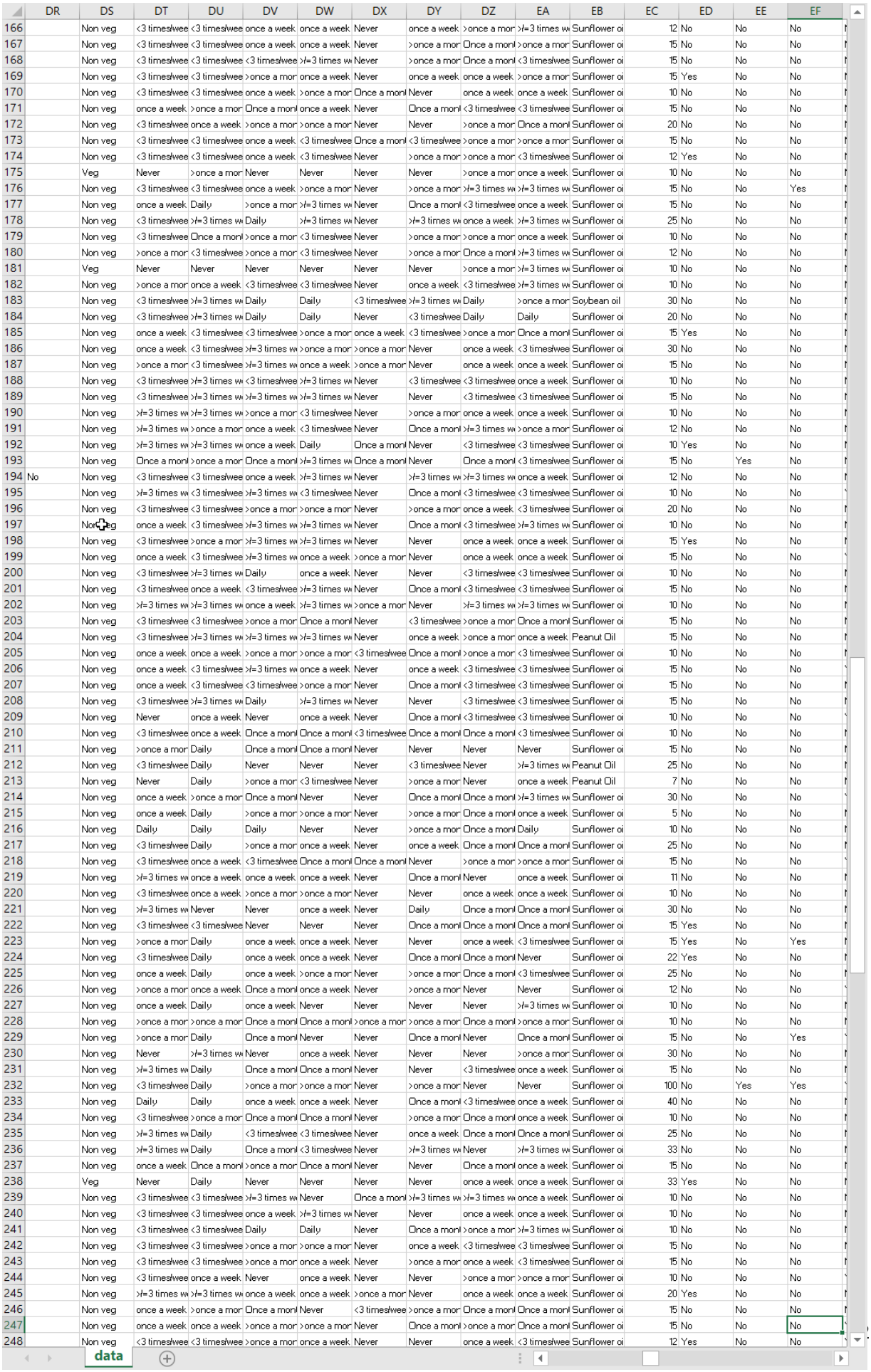
196	No	No				No		No		No		No	No		
197	No	No				No		No		No		No	No		
198	No	No				No		Yes	10	No		No	No		
199	No	No				No		No		No		No	No		
200	No	No				No		No		No		No	No		
201	No	No				No		No		No		No	No		
202	No	Yes		No	AS	No		No		No		No	No		
203	No	No				No		No		No		No	No		
204	No	Yes	MS	Yes		No		No		No		No	No		
205	No	No				No		No		No		No	No		
206	No	No				No		No		No		No	No		
207	No	No				No		No		No		No	No		
208	No	No				No		No		No		No	No		
209	No	No				No		Yes	15	No		No	No		
210	No	No				No		No		No		No	No		
211	No	No				No		No		No		No	No		
212	No	No				No		No		No		No	No		
213	No	No				No		No		No		No	No		
214	No	Yes	MS	Yes		No		No		No		No	Yes	No	No
215	No	No				No		No		No		No	No		
216	No	No				No		No		No		No	No		
217	No	Yes	MS	Yes		No		No		No		No	No		
218	No	No				No		No		No		No	No		
219	No	No				Yes	10	No		No		Yes	No		
220	No	No				No		Yes	40	No		No	No		
221	No	No				No		No		No		No	No		
222	No	No				No		No		No		No	No		
223	No	No				No		No		No		No	No		
224	No	No				No		No		No		No	No		
225	No	No				No		No		No		Yes	No		
226	No	No				Yes	6	Yes	3	No		No	No		
227	No	No				Yes	6	No		No		No	No		
228	No	No				No		No		No		No	No		
229	No	Yes	MS	Yes	AR	No		No		No		No	No		
230	No	No				No		No		No		No	No		
231	No	No				No		No		No		No	No		
232	No	No				No		No		No		No	No		
233	No	No				No		No		No		No	No		
234	No	No				No		No		No		No	No		
235	No	No				No		No		No		No	No		
236	No	No				No		No		No		No	No		
237	No	No				No		Yes	12	No		No	No		
238	No	No				No		No		No		No	No		
239	No	No				Yes	10	No		No		No	No		
240	No	Yes	MR	Yes		No		No		No		No	No		
241	No	No				No		No		No		No	No		
242	No	No				No		No		No		No	No		
243	No	No				No		No		No		No	No		
244	No	No				No		No		No		No	No		
245	No	No				No		No		No		No	No		
246	No	No				No		No		No		No	No		
247	No	No				No		No		No		No	No		
248	No	No				No		No		No		No	No		

data

	DB	DC	DD	DE	DF	DG	DH	DI	DJ	DK	DL	DM	DN	DO	DP
166		No		No	No	No	Minimally Ac	5544	No		No			No	
167		No		No	No	No	Minimally Ac	1386	No		No			No	
168		No		No	Yes	No	Minimally Ac	2772	No		No			No	
169		No		No	No	No	Minimally Ac	1732	No		No			No	
170		No		No	No	No	Minimally Ac	639	No		No			No	
171		No		No	No	No	Minimally Ac	693	No		No			No	
172		No		No	No	No	Minimally Ac	1732	No		No			No	
173		No		No	No	No	Minimally Ac	1039	No		No			No	
174		No		No	No	No	Minimally Ac	1039	No		No			No	
175		No		No	No	No	HEPA ac	3234	No		No			No	
176		No		No	No	No	Minimally Ac	2772	No		No			No	
177		No		No	No	No	Minimally Ac	2772	No		No			No	
178		No		No	No	No	Minimally Ac	1040	No		No			No	
179		No		No	No	No	Inactive	693	No		No			No	
180		No		No	No	Yes	Minimally Ac	1524	No		No			No	
181		No		No	No	No	Minimally Ac	4158	No		No			No	
182		No		No	No	Yes	Minimally Ac	2310	No		No			No	
183		No		No	No	No	Inactive	693	No		No			No	
184		No		No	No	No	Minimally Ac	1386	No		No			No	
185		No		No	No	No	Minimally Ac	1039	No		No			No	
186		No		No	Yes	No	Minimally Ac	2310	No		No			No	
187		No		No	No	No	Minimally Ac	693	No		No			No	
188		No		No	No	No	Minimally Ac	2772	No		No			No	
189		No		No	No	No	HEPA ac	3003	No		No			No	
190		No		No	No	No	Minimally Ac	2772	No		No			No	
191		No		No	No	No	Minimally Ac	2356	No		No			No	
192		No		No	No	No	Minimally Ac	924	No		No			No	
193		No		No	No	No	Inactive	577	No		No			No	
194		No		No	No	No	Minimally Ac	2772	No		No			Yes	No
195		No		No	No	No	Minimally Ac	693	No		No			No	
196		No		Yes	No	No	HEPA ac	8316	No		No			No	
197		No		No	No	No	Minimally Ac	2310	No		No			No	
198		No		No	No	No	Minimally Ac	1155	No		No			No	
199		No		No	No	No	Minimally Ac	1039	No		No			No	
200		No		No	No	No	HEPA ac	8316	No		No			No	
201		No		No	No	No	Minimally Ac	924	No		No			No	
202		No		No	No	No	HEPA ac	3465	No		No			No	
203		No		No	No	No	Minimally Ac	1039	No		No			No	
204		No		No	No	No	HEPA ac	4158	No		No			No	
205		No		No	No	No	Minimally Ac	693	No		No			No	
206		No		No	No	No	Minimally Ac	693	No		No			No	
207		No		No	Yes	No	Minimally Ac	693	No		No			No	
208		No		No	No	Yes	Minimally Ac	693	No		No			No	
209		No		No	Yes	No	HEPA ac	8316	No		No			No	
210		No		No	No	No	HEPA ac	4158	No		No			No	
211		No		No	No	No	Minimally Ac	693	No		No			No	
212		No		No	No	No	Inactive	0	No		No			No	
213		No		No	No	No	HEPA ac	4155	No		No			No	
214		No		No	No	No	Minimally Ac	1155	No		No			No	
215		No		No	No	No	HEPA ac	7225	No		No			No	
216		No		No	No	No	Minimally Ac	693	No		No			No	
217		No		No	No	Yes	Minimally Ac	1386	No		No			No	
218		No		No	No	No	Minimally Ac	1039	No		No			No	
219		No		No	No	Yes	HEPA ac	12474	No		No			No	
220		No		No	No	No	Minimally Ac	2772	No		No			No	
221		No		No	No	No	Minimally Ac	1155	No		No			No	
222		No		No	No	No	Minimally Ac	693	No		No			No	
223		No		No	No	No	Minimally Ac	1039	No		No			No	
224		No		No	No	No	Inactive	231	No		No			No	
225		No		No	No	No	Minimally Ac	1386	No		No			No	
226		No		No	No	No	Minimally Ac	693	No		No			No	
227		No		No	No	No	Minimally Ac	693	No		No			No	
228		No		No	No	No	HEPA ac	8316	No		No			No	
229		No		No	No	No	Minimally Ac	693	No		No			No	
230		No		No	No	No	Inactive	0	No		No			No	
231		No		No	No	No	Minimally Ac	693	No		No			No	
232		No		No	No	No	Inactive	462	No		No			No	
233		No		Yes	No	No	HEPA ac	8316	No		No			No	
234		No		No	No	No	HEPA ac	8316	No		Yes	4	Normal	No	
235		No		No	No	No	Minimally Ac	693	No		No			No	
236		No		No	No	No	Inactive	346	No		No			No	
237		No		No	No	No	Inactive	231	No		No			No	
238		No		No	No	No	HEPA ac	16632	No		No			No	
239		No		No	No	No	Minimally Ac	1039	No		No			No	
240		No		No	No	No	Minimally Ac	693	No		No			No	
241		No		No	No	No	HEPA ac	6930	No		No			No	
242		No		No	No	No	HEPA ac	3465	No		No			No	
243		No		No	No	No	HEPA ac	4158	No		No			No	
244		No		Yes	No	No	Minimally Ac	1039	No		No			No	
245		No		No	No	No	Minimally Ac	1224	No		No			No	
246		No		No	No	No	Minimally Ac	1155	No		No			No	
247		No		No	No	No	Minimally Ac	2772	No		No			No	
248		No		No	No	No	HEPA ac	3465	No		No			No	

data



	DR	DS	DT	DU	DV	DW	DX	DY	DZ	EA	EB	EC	ED	EE	EF
166		Non veg	<3 timeswee	<3 timeswee	once a week	once a week	Never	once a week	>once a mor	>/=3 times w	Sunflower oi	12	No	No	No
167		Non veg	<3 timeswee	<3 timeswee	once a week	once a week	Never	>once a mor	Once a mont	>once a mor	Sunflower oi	15	No	No	No
168		Non veg	<3 timeswee	<3 timeswee	<3 timeswee	>/=3 times w	Never	>once a mor	Once a mont	<3 timeswee	Sunflower oi	15	No	No	No
169		Non veg	<3 timeswee	<3 timeswee	>once a mor	once a week	Never	once a week	once a week	>once a mor	Sunflower oi	15	Yes	No	No
170		Non veg	<3 timeswee	<3 timeswee	once a week	>once a mor	Once a mont	Never	once a week	once a week	Sunflower oi	10	No	No	No
171		Non veg	once a week	>once a mor	Once a mont	once a week	Never	Once a mont	<3 timeswee	<3 timeswee	Sunflower oi	15	No	No	No
172		Non veg	<3 timeswee	once a week	>once a mor	>once a mor	Never	Never	>once a mor	Once a mont	Sunflower oi	20	No	No	No
173		Non veg	<3 timeswee	<3 timeswee	once a week	<3 timeswee	Once a mont	<3 timeswee	>once a mor	>once a mor	Sunflower oi	15	No	No	No
174		Non veg	<3 timeswee	<3 timeswee	once a week	<3 timeswee	Never	>once a mor	>once a mor	<3 timeswee	Sunflower oi	12	Yes	No	No
175		Veg	Never	>once a mor	Never	Never	Never	Never	>once a mor	once a week	Sunflower oi	10	No	No	No
176		Non veg	<3 timeswee	<3 timeswee	once a week	>once a mor	Never	>once a mor	>/=3 times w	>/=3 times w	Sunflower oi	15	No	No	Yes
177		Non veg	once a week	Daily	>once a mor	>/=3 times w	Never	Once a mont	<3 timeswee	once a week	Sunflower oi	15	No	No	No
178		Non veg	<3 timeswee	>/=3 times w	Daily	>/=3 times w	Never	>/=3 times w	once a week	>/=3 times w	Sunflower oi	25	No	No	No
179		Non veg	<3 timeswee	Once a mont	>once a mor	<3 timeswee	Never	>once a mor	>once a mor	once a week	Sunflower oi	10	No	No	No
180		Non veg	>once a mor	<3 timeswee	>once a mor	<3 timeswee	Never	>once a mor	Once a mont	>/=3 times w	Sunflower oi	12	No	No	No
181		Veg	Never	Never	Never	Never	Never	Never	>once a mor	>/=3 times w	Sunflower oi	10	No	No	No
182		Non veg	>once a mor	once a week	<3 timeswee	<3 timeswee	Never	once a week	<3 timeswee	>/=3 times w	Sunflower oi	10	No	No	No
183		Non veg	<3 timeswee	>/=3 times w	Daily	Daily	<3 timeswee	>/=3 times w	Daily	>once a mor	Soybean oil	30	No	No	No
184		Non veg	<3 timeswee	>/=3 times w	Daily	Daily	Never	<3 timeswee	Daily	Daily	Sunflower oi	20	No	No	No
185		Non veg	once a week	<3 timeswee	<3 timeswee	>once a mor	once a week	<3 timeswee	>once a mor	Once a mont	Sunflower oi	15	Yes	No	No
186		Non veg	once a week	<3 timeswee	>/=3 times w	>once a mor	>once a mor	Never	once a week	<3 timeswee	Sunflower oi	30	No	No	No
187		Non veg	>once a mor	<3 timeswee	>/=3 times w	once a week	>once a mor	Never	once a week	once a week	Sunflower oi	15	No	No	No
188		Non veg	<3 timeswee	>/=3 times w	<3 timeswee	>/=3 times w	Never	<3 timeswee	<3 timeswee	once a week	Sunflower oi	10	No	No	No
189		Non veg	<3 timeswee	>/=3 times w	>/=3 times w	>/=3 times w	Never	Never	<3 timeswee	<3 timeswee	Sunflower oi	15	No	No	No
190		Non veg	>/=3 times w	>/=3 times w	>once a mor	<3 timeswee	Never	>once a mor	once a week	once a week	Sunflower oi	10	No	No	No
191		Non veg	>/=3 times w	>once a mor	once a week	<3 timeswee	Never	Once a mont	>/=3 times w	>once a mor	Sunflower oi	12	No	No	No
192		Non veg	>/=3 times w	>/=3 times w	once a week	Daily	Once a mont	Never	<3 timeswee	<3 timeswee	Sunflower oi	10	Yes	No	No
193		Non veg	Once a mont	>once a mor	Once a mont	>/=3 times w	Once a mont	Never	Once a mont	<3 timeswee	Sunflower oi	15	No	Yes	No
194	No	Non veg	<3 timeswee	<3 timeswee	once a week	>/=3 times w	Never	>/=3 times w	>/=3 times w	once a week	Sunflower oi	12	No	No	No
195		Non veg	>/=3 times w	<3 timeswee	>/=3 times w	<3 timeswee	Never	Once a mont	<3 timeswee	<3 timeswee	Sunflower oi	10	No	No	No
196		Non veg	<3 timeswee	<3 timeswee	>once a mor	>once a mor	Never	>once a mor	once a week	<3 timeswee	Sunflower oi	20	No	No	No
197		Non veg	once a week	<3 timeswee	>/=3 times w	>/=3 times w	Never	Once a mont	<3 timeswee	>/=3 times w	Sunflower oi	10	No	No	No
198		Non veg	<3 timeswee	>once a mor	>/=3 times w	>/=3 times w	Never	Never	once a week	once a week	Sunflower oi	15	Yes	No	No
199		Non veg	once a week	<3 timeswee	>/=3 times w	once a week	>once a mor	Never	once a week	once a week	Sunflower oi	15	No	No	No
200		Non veg	<3 timeswee	>/=3 times w	Daily	once a week	Never	Never	<3 timeswee	<3 timeswee	Sunflower oi	10	No	No	No
201		Non veg	<3 timeswee	once a week	<3 timeswee	>/=3 times w	Never	Once a mont	<3 timeswee	<3 timeswee	Sunflower oi	15	No	No	No
202		Non veg	>/=3 times w	>/=3 times w	once a week	>/=3 times w	>once a mor	Never	>/=3 times w	>/=3 times w	Sunflower oi	10	No	No	No
203		Non veg	<3 timeswee	<3 timeswee	>once a mor	Once a mont	Never	<3 timeswee	>once a mor	Once a mont	Sunflower oi	15	No	No	No
204		Non veg	<3 timeswee	>/=3 times w	>/=3 times w	>/=3 times w	Never	once a week	>once a mor	once a week	Peanut Oil	15	No	No	No
205		Non veg	once a week	once a week	>once a mor	>once a mor	<3 timeswee	Once a mont	>once a mor	<3 timeswee	Sunflower oi	10	No	No	No
206		Non veg	once a week	<3 timeswee	>/=3 times w	once a week	Never	once a week	<3 timeswee	<3 timeswee	Sunflower oi	15	No	No	No
207		Non veg	once a week	<3 timeswee	<3 timeswee	>once a mor	Never	Once a mont	<3 timeswee	<3 timeswee	Sunflower oi	15	No	No	No
208		Non veg	<3 timeswee	>/=3 times w	Daily	>/=3 times w	Never	Never	<3 timeswee	<3 timeswee	Sunflower oi	15	No	No	No
209		Non veg	Never	once a week	Never	once a week	Never	Once a mont	<3 timeswee	<3 timeswee	Sunflower oi	10	No	No	No
210		Non veg	<3 timeswee	once a week	Once a mont	Once a mont	<3 timeswee	Once a mont	Once a mont	<3 timeswee	Sunflower oi	10	No	No	No
211		Non veg	>once a mor	Daily	Once a mont	Once a mont	Never	Never	Never	Never	Sunflower oi	15	No	No	No
212		Non veg	<3 timeswee	Daily	Never	Never	Never	<3 timeswee	Never	>/=3 times w	Peanut Oil	25	No	No	No
213		Non veg	Never	Daily	>once a mor	<3 timeswee	Never	>once a mor	Never	once a week	Peanut Oil	7	No	No	No
214		Non veg	once a week	>once a mor	Once a mont	Never	Never	Once a mont	Once a mont	>/=3 times w	Sunflower oi	30	No	No	No
215		Non veg	once a week	Daily	>once a mor	>once a mor	Never	>once a mor	Once a mont	once a week	Sunflower oi	5	No	No	No
216		Non veg	Daily	Daily	Daily	Never	Never	>once a mor	Once a mont	Daily	Sunflower oi	10	No	No	No
217		Non veg	<3 timeswee	Daily	>once a mor	once a week	Never	once a week	Once a mont	Once a mont	Sunflower oi	25	No	No	No
218		Non veg	<3 timeswee	once a week	<3 timeswee	Once a mont	Once a mont	Never	>once a mor	>once a mor	Sunflower oi	15	No	No	No
219		Non veg	>/=3 times w	once a week	once a week	once a week	Never	Once a mont	Never	once a week	Sunflower oi	11	No	No	No
220		Non veg	<3 timeswee	once a week	>once a mor	>once a mor	Never	Never	once a week	once a week	Sunflower oi	10	No	No	No
221		Non veg	>/=3 times w	Never	Never	once a week	Never	Daily	Once a mont	Once a mont	Sunflower oi	30	No	No	No
222		Non veg	<3 timeswee	<3 timeswee	Never	Never	Never	Once a mont	Once a mont	Once a mont	Sunflower oi	15	Yes	No	No
223		Non veg	>once a mor	Daily	once a week	once a week	Never	Never	once a week	<3 timeswee	Sunflower oi	15	Yes	No	Yes
224		Non veg	<3 timeswee	Daily	once a week	once a week	Never	Once a mont	Once a mont	Never	Sunflower oi	22	Yes	No	No
225		Non veg	once a week	Daily	once a week	>once a mor	Never	>once a mor	Once a mont	<3 timeswee	Sunflower oi	25	No	No	No
226		Non veg	>once a mor	once a week	Once a mont	once a week	Never	>once a mor	Never	Never	Sunflower oi	12	No	No	No
227		Non veg	once a week	Daily	once a week	Never	Never	Never	Never	>/=3 times w	Sunflower oi	10	No	No	No
228		Non veg	>once a mor	>once a mor	Once a mont	Once a mont	>once a mor	>once a mor	Once a mont	>once a mor	Sunflower oi	10	No	No	No
229		Non veg	>once a mor	Daily	Once a mont	Never	Never	Once a mont	Never	Once a mont	Sunflower oi	15	No	No	Yes
230		Non veg	Never	>/=3 times w	Never	once a week	Never	Never	Never	>once a mor	Sunflower oi	30	No	No	No
231		Non veg	>/=3 times w	Daily	Once a mont	Once a mont	Never	Never	<3 timeswee	once a week	Sunflower oi	15	No	No	No
232		Non veg	<3 timeswee	Daily	>once a mor	>once a mor	Never	>once a mor	Never	Never	Sunflower oi	100	No	Yes	Yes
233		Non veg	Daily	Daily	once a week	once a week	Never	Once a mont	<3 timeswee	once a week	Sunflower oi	40	No	No	No
234		Non veg	<3 timeswee	>once a mor	Once a mont	Once a mont	Never	>once a mor	Once a mont	once a week	Sunflower oi	10	No	No	No
235		Non veg	>/=3 times w	Daily	<3 timeswee	<3 timeswee	Never	once a week	Once a mont	Once a mont	Sunflower oi	25	No	No	No
236		Non veg	>/=3 times w	Daily	Once a mont	<3 timeswee	Never	>/=3 times w	Never	>/=3 times w	Sunflower oi	33	No	No	No
237		Non veg	once a week	Once a mont	>once a mor	Once a mont	Never	Never	Once a mont	once a week	Sunflower oi	15	No	No	No
238		Veg	Never	Daily	Never	Never	Never	Never	once a week	once a week	Sunflower oi	33	Yes	No	No
239		Non veg	<3 timeswee	<3 timeswee	>/=3 times w	>/=3 times w	Never	Once a mont	>/=3 times w	>/=3 times w	once a week	Sunflower oi	10	No	No
240		Non veg	<3 timeswee	<3 timeswee	once a week	>/=3 times w	Never	Never	once a week	once a week	Sunflower oi	10	No	No	No
241		Non veg	<3 timeswee	<3 timeswee	Daily	Daily	Never	Once a mont	>once a mor	>/=3 times w	Sunflower oi	10	No	No	No
242		Non veg	<3 timeswee	<3 timeswee	>once a mor	>once a mor	Never	once a week	<3 timeswee	<3 timeswee	Sunflower oi	15	No	No	No
243		Non veg	<3 timeswee	<3 timeswee	>once a mor	once a week	Never	>once a mor	once a week	<3 timeswee	Sunflower oi	15	No	No	No
244		Non veg	<3 timeswee	once a week	Never	once a week	Never	Never	>once a mor	>once a mor	Sunflower oi	10	No	No	No
245		Non veg	>/=3 times w	>/=3 times w	once a week	once a week	>once a mor	Never	once a week	once a week	Sunflower oi	20	Yes	No	No
246		Non veg	once a week	>once a mor	Once a mont	Never	<3 timeswee	>once a mor	Once a mont	Once a mont	Sunflower oi	15	No	No	No
247		Non veg	once a week	once a week	>once a mor	>once a mor	Never	Once a mont	>once a mor	Once a mont	Sunflower oi	15	No	No	No
248		Non veg	<3 timeswee	<3 timeswee	>once a mor	once a week	Never	Never	once a week	<3 timeswee	Sunflower oi	12	Yes	No	No

data

	EG	EH	EI	EJ	EK	EL	EM	EN	EO	EP	EQ	ER	ES	ET	EU
166	No	No	No	No	No	No	No			No	No	No	No	No	No
167	No	Yes	No	No	No	No	No	others		Yes	No	No	No	No	No
168	No	No	No	No	No	No	No			No	No	No	No	No	No
169	No	No	No	No	No	No	No			Yes	No	No	No	No	No
170	No	No	No	No	No	No	No			No	No	No	No	No	No
171	No	No	No	No	No	No	No			No	No	No	No	No	No
172	No	No	No	No	No	No	No			No	No	No	No	No	No
173	No	No	No	No	No	No	No			Yes	No	No	No	No	No
174	No	Yes	No	No	No	No	No			Yes	No	No	No	No	No
175	No	No	No	No	No	No	No			No	No	No	No	No	No
176	No	No	No	No	No	No	No			Yes	Yes	No	No	No	Yes
177	No	No	No	No	No	No	No			No	No	No	No	No	No
178	No	No	No	No	No	No	No			No	No	No	No	No	No
179	No	No	No	No	No	No	No			No	No	No	No	No	No
180	No	No	No	No	No	No	No			No	No	No	No	No	No
181	No	No	No	No	Yes	No	No		Dytor	No	No	No	No	No	No
182	No	Yes	No	No	No	No	No	metoprolol		No	No	No	No	No	No
183	No	No	No	No	No	No	No			Yes	No	No	No	No	No
184	No	Yes	No	No	Yes	No	No	others	Furosemide	Yes	No	No	No	No	No
185	No	No	No	No	No	No	No			Yes	No	No	No	No	No
186	No	Yes	No	No	No	No	No	others		No	No	No	No	No	No
187	No	No	No	No	No	No	No			Yes	No	No	No	No	No
188	No	Yes	No	No	No	No	No	others		Yes	Yes	No	No	No	No
189	No	No	No	No	No	No	No			No	No	No	No	No	No
190	No	No	No	No	No	No	No			No	No	No	No	No	No
191	No	Yes	No	No	No	No	No	metoprolol		No	No	No	No	No	No
192	No	Yes	No	No	No	No	No	carvediolo		Yes	No	No	No	No	No
193	No	No	No	No	Yes	No	No		Furosemide	Yes	No	No	No	No	No
194	No	No	No	No	No	No	No			No	No	No	No	No	No
195	Yes	No	No	No	Yes	No	Yes		Furosemide	Yes	No	No	No	No	No
196	No	No	No	No	No	No	No			No	No	No	No	No	No
197	No	No	No	No	No	No	No			No	No	No	No	No	No
198	No	No	No	No	No	No	No			Yes	No	No	No	No	No
199	Yes	No	No	No	Yes	No	No		Furosemide	Yes	Yes	No	No	No	No
200	No	No	No	No	No	No	No			No	No	No	No	No	No
201	No	No	No	No	No	No	No			No	No	No	No	No	No
202	No	No	No	No	No	No	No			No	No	No	No	No	No
203	No	No	No	No	No	No	No			No	No	No	No	No	No
204	No	Yes	Yes	No	No	No	No	metoprolol		No	No	No	No	No	No
205	No	No	No	No	No	No	No			No	No	No	No	No	No
206	Yes	No	No	No	No	No	No			Yes	No	No	No	No	No
207	No	No	No	No	No	No	No			No	No	No	No	No	No
208	No	Yes	No	Yes	Yes	Yes	No	bisoprolol	Dytor	No	No	No	No	No	No
209	Yes	No	No	No	No	No	No			No	No	No	No	No	No
210	No	No	No	No	No	No	No			No	No	No	No	No	No
211	No	Yes	No	Yes	Yes	Yes	No		Dytor	No	No	No	No	No	No
212	No	No	No	No	No	No	No			No	No	No	No	No	No
213	No	No	No	No	No	No	No			No	No	No	No	No	No
214	Yes	No	Yes	No	No	No	No	carvediolo	Furosemide	No	No	No	No	No	No
215	No	No	No	No	No	No	No			No	No	No	No	No	No
216	No	No	No	No	No	No	No			Yes	No	No	No	No	No
217	No	Yes	No	No	No	No	No	metoprolol		No	No	No	No	No	No
218	Yes	Yes	No	No	Yes	No	Yes	others	Furosemide	Yes	No	No	No	No	No
219	No	No	No	No	No	No	No			Yes	Yes	No	No	No	Yes
220	No	No	No	No	No	No	No			No	No	No	No	No	No
221	No	No	No	No	No	No	No			No	No	No	No	No	No
222	No	Yes	No	No	No	No	No	metoprolol	Furosemide	No	No	No	No	No	No
223	No	Yes	Yes	No	Yes	No	No	carvediolo	Dytor	No	No	No	No	No	Yes
224	No	Yes	No	No	Yes	No	No	carvediolo	Furosemide	Yes	No	No	No	No	No
225	No	No	No	No	No	No	No			No	No	No	No	No	No
226	Yes	Yes	No	No	No	No	No			No	No	No	No	No	No
227	No	No	No	No	No	No	No			No	No	No	No	No	No
228	No	No	No	No	No	No	No			No	No	No	No	No	No
229	Yes	Yes	Yes	No	Yes	No	No	others	Furosemide	No	No	No	No	No	No
230	No	No	No	No	No	No	No			No	No	No	No	No	No
231	No	No	No	No	Yes	Yes	No		Dytor	No	No	No	No	No	Yes
232	Yes	Yes	No	No	No	No	No	carvediolo		Yes	No	No	No	No	No
233	No	No	No	No	No	No	No			No	No	No	No	No	No
234	No	No	No	No	No	No	No			No	No	No	No	No	No
235	No	No	No	No	No	No	No			No	No	No	No	No	No
236	No	No	No	No	No	No	No			Yes	No	No	No	No	No
237	No	No	No	No	No	No	No			No	No	No	No	No	No
238	No	No	No	Yes	Yes	No	No			Yes	Yes	No	No	No	No
239	No	No	No	No	No	No	No			No	No	No	No	No	No
240	No	No	No	No	No	No	No			No	No	No	No	No	No
241	No	No	No	No	No	No	No			No	No	No	No	No	No
242	No	No	No	No	No	No	No			No	No	No	No	No	No
243	No	No	No	No	No	No	No			No	No	No	No	No	No
244	Yes	Yes	No	No	No	No	No	carvediolo		Yes	No	No	No	No	No
245	No	Yes	No	No	No	No	Yes	metoprolol		Yes	Yes	No	No	No	No
246	No	No	No	No	No	No	No			Yes	Yes	No	No	No	No
247	Yes	No	No	No	No	No	No			Yes	No	No	No	No	No
248	Yes	No	No	No	No	No	Yes			Yes	Yes	No	No	No	No

data

	EV	EW	EX	EY	EZ	FA	FB	FC	FD	FE	FF	FG	FH	FI	FJ
166		4	Others	No	No	None	124	None	No	No		9	L	Yes	59.1
167		4	Others	No	No	ST Depressi	93	None	No	No		9	BL	Yes	
168		4	Others	No	No	None	175	None	No	Yes	atrial fibrillat	BL	9	Yes	58.6
169		4	Others	No	No	None	107	None	No	No		BL	9	Yes	42.4
170		4	Others	No	No	None	160	None	No	No		9	9	Yes	56.8
171		4	Others	No	No	ST Depressi	165	None	Yes	Yes	atrial fibrillat	9	9	Yes	48.1
172		4	Others	No	No	None	111	None	No	No		BL	9	Yes	
173		Clopidogrel	Others	No	No	ST Depressi	60	None	No	No		9	9	Yes	60.8
174		4	Others	No	No	None	106	None	No	No		9	9	Yes	37.8
175		4	Others	No	No	None	106	None	No	No		BL	BL	Yes	36.9
176		Both	Atorvastatin	No	No	None	79	None	No	No		BL	9	Yes	55.2
177		4	Others	No	No	ST Depressi	141	None	No	No		BL	9	Yes	
178		4	Others	Yes	No	None	110	None	No	No		9	9	Yes	16
179		4	Others	No	No	None	49	LBBB	No	No		9	9	Yes	17.1
180		4	Others	No	No	None	74	None	No	No		9	R	Yes	53.8
181		4	Others	No	No	None	121	LBBB	No	No		BL	BL	Yes	
182		4	Others	No	No	None	91	None	No	No		BL	9	Yes	37.9
183		4	Others	No	No	None	90	None	No	No		9	BL	Yes	30.3
184		4	Others	No	No	None	131	RBBB	No	No		9	9	Yes	34.1
185		4	Others	No	No	None	44	None	No	No		BL	9	Yes	40.1
186		4	Others	No	No	None	89	None	No	No		9	9	Yes	57.9
187		4	Others	No	No	None	81	None	No	No		9	R	9	
188		4	Others	No	No	None	125	None	No	No		9	9	9	
189		4	Others	No	No	None	136	None	No	No		9	9	9	
190		4	Others	No	No	None	107	None	No	No		9	BL	Yes	21.8
191		Aspirin	Atorvastatin	No	No	None	160	None	No	Yes	atrial fibrillat	BL	9	Yes	
192		Aspirin	Atorvastatin	No	No	None	112	LBBB	No	No		9	9	Yes	33.6
193		Aspirin	Atorvastatin	No	No	None	78	None	No	No		9	9	9	56.6
194		4	Others	No	No	None	156	None	Yes	No		BL	9	Yes	55.7
195		Aspirin	Atorvastatin	No	No	None	70	None	No	No		BL	9	Yes	46
196		4	Others	No	No	None	100	None	No	No		BL	9	Yes	
197		4	Others	No	No	None	103	RBBB	No	No		9	9	Yes	42.6
198		Aspirin	Atorvastatin	No	No	None	173	None	No	No		9	9	Yes	38.2
199		Aspirin	Atorvastatin	No	No	None	60	None	No	No		9	9	Yes	57.7
200		4	Others	No	No	None	61	None	No	No		9	9	Yes	57.1
201		4	Others	No	No	None	114	None	No	No		9	9	Yes	28.9
202		4	Others	No	No	None	96	None	No	No		9	9	Yes	
203		4	Others	No	No	None	88	None	No	No		BL	9	Yes	33.2
204		4	Others	No	No	None	124	None	No	No		9	9	Yes	55.5
205		4	Others	No	No	None	88	None	No	No		9	9	Yes	30.1
206		4	Others	No	No	None	118	None	No	No		9	9	Yes	55
207		4	Others	No	No	None	83	None	No	No		9	9	9	58.1
208		Both	Atorvastatin	No	No	None	70	None	No	No		9	R	Yes	43.6
209		4	Others	No	No	None	98	None	No	No		BL	9	Yes	34.1
210		4	Others	No	No	None	66	None	No	No		9	9	9	42.6
211		Both	Atorvastatin	No	No	None	90	None	Yes	No		9	L	Yes	42.6
212		4	Others	No	No	None	87	None	No	No		9	9	Yes	56.6
213		4	Others	No	No	None	106	None	No	No		9	BL	Yes	56
214		4	Others	No	No	None	170	None	No	Yes	atrial fibrillat	9	9	Yes	57.3
215		4	Others	No	No	None	69	None	No	No		9	BL	Yes	54.3
216		4	Others	No	No	None	78	None	No	No		BL	9	Yes	56.9
217		4	Others	No	No	None	144	None	No	No		BL	9	Yes	57.5
218		4	Others	No	No	None	131	None	No	No		BL	BL	Yes	41.3
219	1	4	Others	No	No	None	84	None	No	No		BL	9	Yes	45.2
220		4	Others	No	No	ST Depressi	130	None	No	No		BL	9	9	41.4
221		4	Others	No	No	None	83	None	No	No		BL	BL	Yes	41.9
222		Both	Atorvastatin	No	No	None	140	None	No	No		BL	9	Yes	24.2
223	2	Aspirin	Others	No	No	ST Depressi	105	None	Yes	No		BL	BL	Yes	27.1
224		Aspirin	Atorvastatin	No	No	None	77	None	No	No		9	9	Yes	55.5
225		4	Others	No	No	None	91	None	No	No		9	BL	Yes	33
226		4	Atorvastatin	No	No	ST Depressi	113	None	Yes	No		9	9	Yes	
227		4	Others	No	No	None	119	None	No	No		9	9	Yes	
228		4	Others	No	No	None	80	None	No	No		BL	BL	Yes	57.6
229		4	Others	Yes	No	ST Depressi	76	None	No	Yes	atrial fibrillat	L	9	Yes	58.7
230		4	Others	No	No	None	85	None	No	No		9	9	Yes	58.1
231	5	Aspirin	Others	No	No	None	97	None	No	No	3	BL	BL	Yes	56.5
232		Clopidogrel	Atorvastatin	No	No	ST Elevatior	61	None	No	No		9	9	Yes	39.5
233		Both	Atorvastatin	No	No	None	117	None	No	No		9	9	Yes	56.9
234		4	Others	No	No	None	48	None	No	Yes	sinus brady	BL	9	Yes	57.1
235		4	Others	No	No	None	92	None	No	No		9	9	Yes	68
236		4	Others	No	No	None	98	None	No	No		BL	9	Yes	42.1
237		4	Others	No	No	None	92	None	No	No		9	9	Yes	30.1
238		Aspirin	Atorvastatin	No	No	None	82	None	No	No		BL	BL	Yes	58.5
239		4	Others	No	No	None	65	None	No	No		9	L	Yes	57.8
240		4	Others	No	No	ST Depressi	85	None	Yes	No		9	9	9	19.9
241		4	Others	No	No	None	69	None	No	Yes	atrial fibrillat	9	9	Yes	36.1
242		4	Others	No	No	None	112	None	No	No		BL	9	Yes	55.5
243		4	Others	No	No	None	125	None	Yes	No		BL	9	Yes	17.8
244		Aspirin	Atorvastatin	No	No	None	127	None	No	No		9	L	Yes	42.1
245		Aspirin	Atorvastatin	No	No	None	82	None	No	No		9	9	Yes	44.4
246		4	Atorvastatin	No	No	None	91	None	Yes	No		9	R	Yes	32.1
247		Aspirin	Atorvastatin	No	No	None	81	None	No	Yes	ventricular b	BL	9	Yes	32.7
248		4	Others	No	No	ST Depressi	95	None	No	No		9	9	Yes	40.6

data

	FL	FM	FN	FO	FP	FQ	FR	FS	FT	FU	FV	FW	FX	FY	FZ
166	0.5	No	No	No	No	No	No	No	No	HFpEF(LVE	6.1	0.6	128	2.5	10.1
167											412	50	653	38	9.8
168	0.5	No	No	No	No	No	No	No	No	HFpEF(LVE	181	3.4	274	9	11.7
169	1.7	No	Yes	No	No	No	No	No	No	HFmrEF(LVI	445	18.9	459	20	7.6
170	1.1	No	No	No	No	No	No	No	No	HFpEF(LVE	40.3	2.4			7
171		No	No	No	Yes	No	No	No	No	HFmrEF(LVI	41.5	2	41.8	2.2	10.4
172															10.5
173	1.1	No	No	No	No	No	No	No	No	HFpEF(LVE	0.8	4.9	5		12.3
174	0.7	No	No	No	No	No	No	No	No	HFrEF (LVE	31.2	1.6	29.3	1.7	8
175	0.4	No	No	No	No	No	No	No	No	HFrEF (LVE	17.7	3.2	87.6	7.8	11.4
176	0.7	No	No	No	No	No	No	No	No	HFpEF(LVE	47.7	2	57	2.5	10.3
177											19	1.4			9
178	3.4	No	No	No	No	No	No	No	No	HFrEF (LVE					15.6
179	0.6	No	Yes	No	No	No	No	No	No	HFrEF (LVE	16		20	3.5	12.1
180	0.5	No	No	No	Yes	No	No	No	No	HFpEF(LVE	12.4	3.3	359	11	9.9
181											198	3.9	205	3.6	12.3
182	0.7	No	No	No	No	No	No	No	No	HFrEF (LVE	46.5	8	45.5		12.9
183	1.7	No	Yes	No	Yes	No	No	No	No	HFrEF (LVE	118	8.1	123	8.8	12.6
184	0.4	No	Yes	No	No	No	No	No	No	HFrEF (LVE	13.2	8.7	27.2	2.9	10.8
185	0.8	No	No	No	No	No	No	No	No	HFmrEF(LVI	79.4	4.1	78.6	4.7	9.1
186	0.6	No	No	No	No	No	Yes	No	No	HFpEF(LVE	119	7.2	156	5.7	12.4
187															14.9
188											24.3	1.7	29.8	7.7	15.8
189															4
190	0.8	No	No	No	No	No	No	No	No	HFrEF (LVE	623	18.9	633	18.2	9.8
191											11.1	1.4	21.8		10.1
192	1.6	No	No	No	No	No	No	No	No	HFrEF (LVE	41		253		13
193	2.9	No	Yes	No	Yes	No	No	No	No	HFpEF(LVE	15.6	1.7	20.9	1.3	9.6
194	0.7	No	No	No	No	No	No	No	No	HFpEF(LVE	20.8	1.1	183	4.9	8.3
195	1.2	No	No	No	No	No	No	No	No	HFmrEF(LVI	26.1	1.5			9.8
196											57.9	4.3	74.3	5.4	11
197	1.2	No	No	No	No	No	No	No	No	HFmrEF(LVI	130	3.2	115	6.3	12.1
198	1.3	No	No	No	No	No	No	No	No	HFrEF (LVE	33.4	1.1	153	4.8	8.7
199	0.6	No	No	No	No	No	No	No	No	HFpEF(LVE	30	1.6	25		14.7
200	0.7	No	No	No	No	No	No	No	No	HFpEF(LVE	2371	46.4	2778	32.4	15.7
201		No	Yes	No	No	No	No	No	No	HFrEF (LVE	124	3.5	1004		13.9
202											50	2.3	235	4.8	8.9
203	0.5	No	No	No	No	No	No	No	No	HFrEF (LVE	70.2	5.8	121	8.2	11.4
204		Yes	No	No	Yes	No	No	No	No	HFpEF(LVE	20.7	17.6			10.9
205		No	No	No	No	No	No	No	No	HFrEF (LVE	28.2	1.4	32.3	1.5	12.5
206		No	No	No	No	No	No	No	No	HFpEF(LVE	31.1	1.5	53	1	15.2
207	0.5	No	No	No	No	No	No	No	No	HFpEF(LVE					11.5
208	0.8	No	Yes	No	No	No	No	No	No	HFmrEF(LVI	325	2.9	353	2.7	8.3
209	0.4	No	Yes	No	No	No	No	No	No	HFrEF (LVE	29.6	3.5	25.3	5.5	12.4
210	1.8	No	Yes	No	No	No	No	No	No	HFmrEF(LVI	22.7	20.8	25	15.1	8.7
211	0.6	No	No	No	No	No	No	No	No	HFmrEF(LVI	0.4	7.4	1	7.4	10.9
212	1.1	No	No	No	No	No	No	No	No	HFpEF(LVE		1	9.6	1.3	6.7
213	0.6	No	No	No	No	No	No	No	No	HFpEF(LVE	19.1	1.3	13.8	1.3	13.5
214		Yes	Yes	No	Yes	No	No	No	No	HFpEF(LVE	69	2	110	4.5	10.5
215	1.2	No	No	No	No	No	No	No	No	HFpEF(LVE	55.5	7.8			10.4
216		No	Yes	No	No	No	No	No	No	HFrEF (LVE	27.4	0.4	27.1	1.2	9.3
217		Yes	No	No	Yes	No	No	No	No	HFpEF(LVE					11.9
218	1.4	No	Yes	No	No	No	No	No	No	HFmrEF(LVI	11.4	1.9	16.6	2	9.7
219		No	No	No	No	No	No	No	No	HFmrEF(LVI	165		399	7.7	9.2
220	1.9	No	No	No	No	No	No	No	No	HFmrEF(LVI	111	1.6	146	2	7.8
221	1.8	No	No	No	No	No	No	No	No	HFmrEF(LVI					6.3
222	1.8	No	No	No	No	No	No	No	No	HFrEF (LVE	84.3	2.6	595.5	11.7	13.7
223	1.8	No	No	No	No	No	No	No	No	HFrEF (LVE	43.7	2.4	42.6		10.1
224	0.8	No	No	No	No	No	No	No	No	HFpEF(LVE	23.3	0.6	29.3		9.5
225	0.7	No	No	No	No	No	No	No	No	HFrEF (LVE	142	58.1		48.2	10.6
226											3.6	19	4.3	4.3	11.1
227											48	3	73	1	9.6
228	1.9	No	No	No	No	No	No	No	No	HFpEF(LVE	32		37	5.7	9
229	0.8	Yes	No	No	Yes	No	No	No	No	HFpEF(LVE					10.1
230	0.7	No	No	No	No	No	No	No	No	HFpEF(LVE					4.9
231	1.1	No	No	No	No	No	No	No	No	HFpEF(LVE	101		235	9.1	10.7
232	0.3	No	No	No	No	No	No	No	No	HFrEF (LVE	0	2			11.3
233	1.8	No	No	No	No	No	No	No	No	HFpEF(LVE					5.6
234	1.2	No	No	No	No	No	No	No	No	HFpEF(LVE	0	4.4			10.1
235	1.4	No	No	No	No	No	No	No	No	HFpEF(LVE					12.4
236	1.2	No	No	No	No	No	No	No	No	HFmrEF(LVI	52.8	14	111	3.8	13.4
237	1.7	No	No	No	No	No	No	No	No	HFrEF (LVE	289	4.9	662	5	14
238	0.8	No	No	No	No	No	No	No	No	HFpEF(LVE	102		435	20.4	11.1
239	0.7	No	No	No	No	No	No	No	No	HFpEF(LVE	34.1	2.4	34.1	2	7.8
240		No	No	No	No	No	No	No	No	HFrEF (LVE	22	3.3	38	4.4	13.3
241		No	No	No	Yes	No	No	No	No	HFrEF (LVE	18.9	1.3			6.8
242	1.2	No	No	No	No	No	No	No	No	HFpEF(LVE	145	7.6	236	8	8.6
243	1.5	No	No	No	No	No	No	No	No	HFrEF (LVE	72	13.4	73	10	14
244	1.5	No	Yes	No	No	No	No	No	No	HFmrEF(LVI	5.9	1.9	61.3		10.8
245	0.6	No	Yes	No	No	No	No	No	No	HFmrEF(LVI	78	8.2	81	8.6	10.8
246	0.4	No	No	No	No	No	No	No	No	HFrEF (LVE	24.6	3.8	23.8	4.3	13.8
247	1.3	No	Yes	No	No	No	No	No	No	HFrEF (LVE	72.8	6.6	92.3	5.9	18.4
248	1.5	No	No	No	No	No	No	No	No	HFmrEF(LVI	77.7	3.2			9.8

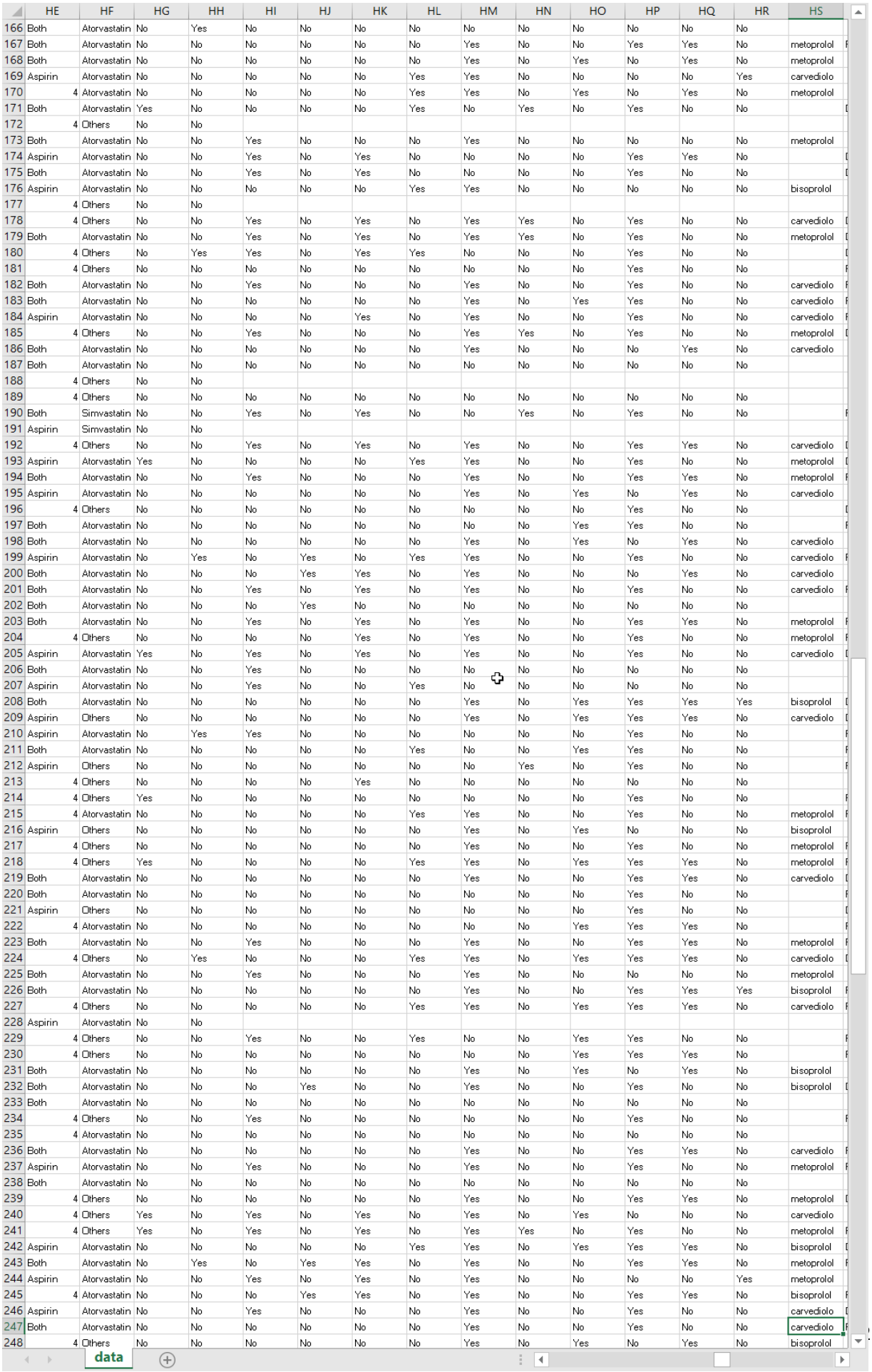
data

	GA	GB	GC	GD	GE	GF	GG	GH	GI	GJ	GK	GL	GM	GN	GO
166	57	1.1	6.3					136	4.1				7.35	4.9	No
167	29	0.8		150	130		97	137		3.5			7.44	2.7	No
168	58	2.1	5.7	183	151	68	107	132	5.1				7.25	2.7	Yes
169	129	8.1	6.4	158	118	32	91	142	5.7	4.6		251	7.23	0.6	No
170	79	5.3		171	112	31	129	136	4.5	5.1			7.36	1	Yes
171	81	2.5	7.4	135	181	37	84	129	4.7	10.7	35000		7.39	1.6	No
172	26	0.8						108	4.8			233	7.45	1.7	Yes
173	18	0.8	7.6	108	84	45	55	142	4.3				7.43	0.7	No
174	42	1.7	6.1					134	4.2				7.45	1.2	No
175	22	0.7		183	76	61	110	136	5				7.29	4.2	Yes
176	45	1.7	7.9					129	4.5				7.43	0.5	No
177	12	0.4						132	3.8		138		7.64	1.9	Yes
178	34	0.9	6.7					138	4.2						Yes
179	39	0.9	5.4	150	92	53	93	131	3.9				7.11	6.7	Yes
180	31	0.7	6.5	150	94	49	92	121	4.1	3.9		282	7.47	3	No
181	35	0.5						140	3.4		28639		7.42	1	Yes
182	42	0.9		191	104	39	120	134	4.1		16625		7.43	0.9	Yes
183	64	1.7	8					139	4.2	8.3			7.5	1.3	No
184	19	0.6	12.1	157	143	48	97	133	4.4				7.22	3.7	Yes
185	38	0.8	9.5					114	5			249	7.47	1.5	No
186	78	1.2	6.6	153	100	75	71	130	4.1				7.41	3	No
187	40	1.4	5.5	164	256	64	70	139	3				7.37	1.4	Yes
188	100	3.2	6.9	114	245	34	69	121	4.3				7.35	4	Yes
189	24	0.9						141	3.9				7.44	2.6	No
190	88	0.8	5.3					136	4.5						No
191	17	0.5						136	3.5	5.8			7.4	2.4	No
192	30	1.1	7.3	87	82	24	56	136	4						No
193	36	0.8	10.5	111	106	37	62	139	3.7				7.54	1.2	No
194	19	0.5						138	3.6	2.1			7.23	7.1	Yes
195	51	1.3		174	76	49	105	135	4.3	8.3					No
196	40	1						134	2.9				7.32	3.4	No
197	643	3.1	7.5					136	4.4				7.44	1	No
198	45	2.2	10.7	184			118	122	5.5	8.6		294	7.17	4.3	Yes
199	22	0.8	7.9	132	95	28	94	135	4.1				7.42	1.5	No
200	32	1		162	125	44	107	136	4.7	8.4					No
201	19	0.8	6.4					134	3.9				7.32	3.9	No
202		0.7	5.8					137	4.3				7.25	0.5	No
203	43	1.1	13.4	188	196	35	137	137	4.1				7.33	5.5	Yes
204	33	0.9						131	4				7.53	3.2	No
205	23	0.8	7.8					135	4.1	9.7			7.49	1.8	No
206	21	0.6	8.9	118	149	40	53	133	3.7	6.6			7.37	5.9	No
207	33	0.8						139	3.2				7.53	1.3	No
208	109	3.7		337	714	17	211	138	4.2	9.8					No
209	36	1.1	7.3	188	187	43	139	138	3.1				7.49	3.7	No
210	29	0.6		137	117	42	78	114	4.7			247	7.5	0.8	No
211	59	2.1	7.3					135	4.1				7.3	2.2	No
212	27	0.8						133	3.7				7.5	2	No
213	38	1.1	5.8	89	79	33	46	129	4.5			300	7.46	3.1	No
214	73	1	6.3	155	177	53	89	136	2				7.62	1.9	Yes
215	57	2.4	6.4					112	5.1	6		263	7.22	4.4	No
216	57	1.2		110	107	28	60	131	5.2		6219	293	7.1	4.4	No
217	24	0.7	7.2	249	261	51	164	137	3.7	1			7.46	1.5	Yes
218	71	2.5	9.8	102	51	42	64	138	4.9				7.13	2.5	No
219	100	3.9						134	5.2				7.37	0.5	No
220	37	0.6	5.9	66	66	28	35	136	2.8	6.4			7.53	1.1	No
221	150	4.9	5.8					134	6	9.8			7.26	1.1	No
222	76	2.1	8.6	169	91	56	99	137	4.2						Yes
223	71	1.2	10.5	153	172	35	96	136	4.5				7.3	2.2	No
224	54	1.9	7.4	114	173	29	60	136	4	6.1	3667		7.25	0.7	No
225	22	0.6	6	130	44	69	60	108	3.3			232			No
226	41	1.8						127	3.2				7.52	5.1	No
227	30		11.6	133	54	44	83	134	4.7				7.4	1.1	No
228	57	1.8						129	3.3				7.46	3.5	Yes
229		0.7						126	4			258	7.4	1.2	No
230	59	2.5						139	5.4				7.29	1	No
231	83	3.4	6.5	161	187	37	102	135	4.7	7.8			7.42	0.7	No
232	53	2.4	6.7					136	4.9	9.3					No
233	23	0.7						137	3.9				7.41	1.3	No
234	21	0.6						139	3.9						No
235	33	0.9	6.2	349	126	64	252	130	3.9						No
236	29	2.7	6.8	95	51	62	34	138	4.3				7.14	4.2	No
237	29	1.3		52	51	34	16	134	3.8	3.3			7.45	2.4	Yes
238	39	0.9	9	129	195	41	71	138	5				7.4	3.5	No
239	80	2.3	4	102	76	33	51	134	5.7	83			7.39	1.8	No
240	34	1		148	75	44	82	133	4.4				7.15	3.9	No
241		1	5.6					132	3.9				7.35	1.8	No
242	53	3.3	7.3	146	98	51	83	136	4.4	8.4			7.42	0.7	No
243	30	1	6.1	86	78	29	40	124	4.5		3750	276	7.35	1.9	No
244	60	1.6		94	128	22	57	126	5.5	6.9			7.37	3.1	No
245	43	1.6	7.5					144	3.7	6.2	7683		7.39	0.6	No
246	22	0.7	9.9					117	4.7						No
247	47	1.6	9.5	120	340	3	49	135	6.2				7.1	5.5	No
248	58	3.6	7.9	147	111	38	100	135	3.9				7.39	0.8	No

data

	GP	GQ	GR	GS	GT	GU	GV	GW	GX	GY	GZ	HA	HB	HC	HD
166	0	Yes	8	No	No	No	No	No	No	No	Yes	No	No		Furosemide
167	0	No	0	No	No	No	No	Yes	No	No	Yes	No	No	carvediolo	Dytor
168	1	No	0	No	No	No	Yes	Yes	No	Yes	Yes	Yes	No	metoprolol	Furosemide
169	0	Yes	3	No	No	No	Yes	Yes	No	No	Yes	No	Yes	metoprolol	Furosemide
170	1	No	0	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes		Dytor
171	0	No	0	No	No	Yes	No	Yes	Yes	No	Yes	No	No	metoprolol	Furosemide
172	2	No	0	No	No	No	No	No	No	No	No	No	No		
173	0	No	0	Yes	No	No	No	Yes	No	No	No	No	No	metoprolol	
174	0	No	0	No	No	No	No	No	No	Yes	Yes	Yes	No		Dytor
175	1	No	0	No	No	No	No	No	No	No	No	Yes	No		
176	0	No	0	No	No	No	Yes	Yes	No	No	No	No	No	bisoprolol	
177	1	No	0	No	No	No	No	No	Yes	No	No	No	No		
178	1	No	0	Yes	No	No	No	No	No	No	Yes	No	No		Dytor
179	1	No	0	Yes	No	Yes	No	Yes	Yes	No	Yes	No	No	others	Dytor
180	0	No	0	No	No	No	No	No	No	No	Yes	No	No		Dytor
181	1	No	0	No	Yes	No	No	No	Yes	No	Yes	No	No		Furosemide
182	2	No	0	Yes	No	No	No	Yes	No	No	Yes	No	No	bisoprolol	Furosemide
183	0	No	0	Yes	No	No	No	Yes	No	No	Yes	No	No	metoprolol	Furosemide
184	1	No	0	No	No	No	No	Yes	No	No	Yes	No	No	metoprolol	Furosemide
185	0	No	0	No	No	No	No	No	No	No	No	No	No		
186	0	No	0	Yes	No	No	No	Yes	No	No	No	No	No	others	
187	1	No	0	Yes	No	No	No	No	No	No	No	No	No		
188	3	No	0	No	No	No	No	No	No	No	No	No	No		
189	0	No	0	No	No	No	No	No	No	No	No	No	No		
190	0	No	0	Yes	No	Yes	No	No	Yes	No	Yes	Yes	No		Furosemide
191	0	No	0	No	No	No	Yes	No	Yes	No	Yes	No	No		Furosemide
192	0	No	0	Yes	No	No	No	No	No	No	Yes	No	No		Furosemide
193	0	No	0	No	Yes	No	Yes	Yes	No	No	Yes	No	No	metoprolol	Furosemide
194	1	No	0	Yes	No	No	No	Yes	No	No	Yes	Yes	No	metoprolol	Furosemide
195	0	No	0	No	No	No	No	No	No	Yes	Yes	Yes	No		Furosemide
196	0	Yes	5	No	No	No	No	No	No	No	Yes	No	No		Furosemide
197	0	No	0	No	No	No	No	No	No	Yes	Yes	Yes	No		Furosemide
198	1	No	0	No	Yes	Yes	No	Yes	No	No	No	Yes	No	carvediolo	
199	0	No	0	Yes	No	No	No	Yes	No	No	Yes	No	No	carvediolo	Furosemide
200	0	No	0	No	No	No	Yes	Yes	No	Yes	Yes	No	No	bisoprolol	Furosemide
201	0	No	0	No	No	Yes	No	Yes	No	No	Yes	No	No	carvediolo	Furosemide
202	0	No	0	Yes	No	No	No	No	No	No	Yes	No	No		Furosemide
203	1	No	0	Yes	No	Yes	No	Yes	No	No	No	No	No	metoprolol	
204	0	No	0	No	No	No	No	Yes	Yes	No	Yes	No	No	metoprolol	Furosemide
205	0	No	0	Yes	No	No	Yes	Yes	No	Yes	Yes	No	No	carvediolo	Furosemide
206	0	No	0	No	No	No	No	Yes	No	Yes	No	Yes	No	carvediolo	
207	0	No	0	No	No	No	Yes	No	No	No	No	No	No		
208	0	No	0	No	No	No	No	Yes	No	No	Yes	No	Yes	bisoprolol	Dytor
209	0	No	0	No	No	No	No	Yes	No	Yes	Yes	No	No	carvediolo	Furosemide
210	0	No	0	No	No	No	Yes	Yes	No	No	No	No	No	metoprolol	
211	0	No	0	No	No	No	No	No	No	Yes	Yes	Yes	No		Furosemide
212	0	No	0	No	No	No	No	No	Yes	No	Yes	No	No		Furosemide
213	0	No	0	Yes	No	Yes	No	Yes	No	No	Yes	No	No	metoprolol	Dytor
214	1	No	0	No	No	Yes	No	Yes	No	No	No	No	No	metoprolol	
215	0	No	0	No	No	No	Yes	No	No	No	Yes	No	No		Furosemide
216	0	Yes	6	Yes	No	No	Yes	Yes	No	No	Yes	No	No	bisoprolol	Dytor
217	3	No	0	No	No	No	No	Yes	Yes	No	Yes	No	No	metoprolol	Furosemide
218	0	No	0	No	No	No	Yes	Yes	No	Yes	No	Yes	No	metoprolol	
219	0	No	0	No	No	No	No	No	No	No	No	No	No		
220	0	No	0	No	No	No	No	No	No	No	Yes	No	No		Furosemide
221	0	No	0	No	No	No	No	No	No	Yes	Yes	Yes	No		Furosemide
222	3	No	0	No	No	No	No	No	No	Yes	No	Yes	No		
223	0	No	0	Yes	No	No	No	Yes	No	No	Yes	Yes	No	metoprolol	Furosemide
224	0	No	0	No	No	No	No	No	No	No	Yes	No	No		Furosemide
225	0	No	0	Yes	No	No	No	Yes	No	No	Yes	No	No	metoprolol	Furosemide
226	0	Yes	8	No	No	No	Yes	No	No	Yes	Yes	No	No		Furosemide
227	0	No	0	No	Yes	No	No	No	No	No	Yes	No	Yes		Furosemide
228	3	No	0	No	No	No	Yes	No	No	No	No	No	No		
229	0	No	0	Yes	No	No	No	Yes	Yes	No	No	No	No	metoprolol	
230	0	No	0	No	No	No	No	No	No	Yes	Yes	Yes	No		Furosemide
231	0	No	0	No	No	No	Yes	Yes	No	Yes	Yes	Yes	No	bisoprolol	Dytor
232	0	No	0	No	No	No	No	Yes	No	Yes	Yes	Yes	No	bisoprolol	Dytor
233	0	No	0	Yes	No	No	No	No	No	No	Yes	No	No		Furosemide
234	0	No	0	Yes	No	Yes	No	No	No	No	Yes	No	No		Furosemide
235	0	No	0	No	No	No	No	No	No	No	No	No	No		
236	0	Yes	4	No	No	No	No	Yes	Yes	No	Yes	Yes	No	carvediolo	Furosemide
237	1	No	0	Yes	No	Yes	No	Yes	Yes	No	Yes	No	No	metoprolol	Furosemide
238	0	No	0	Yes	No	No	No	Yes	No	No	Yes	Yes	No	metoprolol	Furosemide
239	0	No	0	Yes	No	No	No	No	Yes	Yes	Yes	No	No		Furosemide
240	0	No	0	Yes	No	Yes	No	No	Yes	No	Yes	No	No		Furosemide
241	0	No	0	Yes	No	No	No	Yes	Yes	No	Yes	No	No	metoprolol	Furosemide
242	0	No	0	No	No	No	Yes	No	No	Yes	Yes	Yes	No		Furosemide
243	0	No	0	No	Yes	No	No	Yes	No	No	Yes	Yes	No	metoprolol	Furosemide
244	0	No	0	Yes	No	Yes	No	Yes	No	Yes	Yes	Yes	No	metoprolol	Dytor
245	0	No	0	Yes	No	No	No	Yes	No	No	Yes	Yes	Yes	bisoprolol	Furosemide
246	0	No	0	Yes	No	No	No	Yes	No	No	Yes	No	No	carvediolo	Dytor
247	0	No	0	No	No	No	No	No	Yes	No	No	No	Yes		
248	0	No	0	Yes	No	No	No	Yes	Yes	No	Yes	Yes	No	bisoprolol	Furosemide

data



	HE	HF	HG	HH	HI	HJ	HK	HL	HM	HN	HO	HP	HQ	HR	HS
166	Both	Atorvastatin	No	Yes	No	No	No	No	No	No	No	No	No	No	
167	Both	Atorvastatin	No	No	No	No	No	No	Yes	No	No	Yes	Yes	No	metoprolol
168	Both	Atorvastatin	No	No	No	No	No	No	Yes	No	Yes	No	Yes	No	metoprolol
169	Aspirin	Atorvastatin	No	No	No	No	No	Yes	Yes	No	No	No	No	Yes	carvediolo
170	4	Atorvastatin	No	No	No	No	No	Yes	Yes	No	Yes	No	Yes	No	metoprolol
171	Both	Atorvastatin	Yes	No	No	No	No	Yes	No	Yes	No	Yes	No	No	
172	4	Others	No	No											
173	Both	Atorvastatin	No	No	Yes	No	No	No	Yes	No	No	No	No	No	metoprolol
174	Aspirin	Atorvastatin	No	No	Yes	No	Yes	No	No	No	No	Yes	Yes	No	
175	Both	Atorvastatin	No	No	Yes	No	Yes	No	No	No	No	Yes	No	No	
176	Aspirin	Atorvastatin	No	No	No	No	No	Yes	Yes	No	No	No	No	No	bisoprolol
177	4	Others	No	No											
178	4	Others	No	No	Yes	No	Yes	No	Yes	Yes	No	Yes	No	No	carvediolo
179	Both	Atorvastatin	No	No	Yes	No	Yes	No	Yes	Yes	No	Yes	No	No	metoprolol
180	4	Others	No	Yes	Yes	No	Yes	Yes	No	No	No	Yes	No	No	
181	4	Others	No	No	No	No	No	No	No	No	No	Yes	No	No	
182	Both	Atorvastatin	No	No	Yes	No	No	No	Yes	No	No	Yes	No	No	carvediolo
183	Both	Atorvastatin	No	No	No	No	No	No	Yes	No	Yes	Yes	No	No	carvediolo
184	Aspirin	Atorvastatin	No	No	No	No	Yes	No	Yes	No	No	Yes	No	No	carvediolo
185	4	Others	No	No	Yes	No	No	No	Yes	Yes	No	Yes	No	No	metoprolol
186	Both	Atorvastatin	No	No	No	No	No	No	Yes	No	No	No	Yes	No	carvediolo
187	Both	Atorvastatin	No	No	No	No	No	No	No	No	No	No	No	No	
188	4	Others	No	No											
189	4	Others	No	No	No	No	No	No	No	No	No	No	No	No	
190	Both	Simvastatin	No	No	Yes	No	Yes	No	No	Yes	No	Yes	No	No	
191	Aspirin	Simvastatin	No	No											
192	4	Others	No	No	Yes	No	Yes	No	Yes	No	No	Yes	Yes	No	carvediolo
193	Aspirin	Atorvastatin	Yes	No	No	No	No	Yes	Yes	No	No	Yes	No	No	metoprolol
194	Both	Atorvastatin	No	No	Yes	No	No	No	Yes	No	No	Yes	Yes	No	metoprolol
195	Aspirin	Atorvastatin	No	No	No	No	No	No	Yes	No	Yes	No	Yes	No	carvediolo
196	4	Others	No	No	No	No	No	No	No	No	No	Yes	No	No	
197	Both	Atorvastatin	No	No	No	No	No	No	No	No	Yes	Yes	No	No	
198	Both	Atorvastatin	No	No	No	No	No	No	Yes	No	Yes	No	Yes	No	carvediolo
199	Aspirin	Atorvastatin	No	Yes	No	Yes	No	Yes	Yes	No	No	Yes	No	No	carvediolo
200	Both	Atorvastatin	No	No	No	Yes	Yes	No	Yes	No	No	No	Yes	No	carvediolo
201	Both	Atorvastatin	No	No	Yes	No	Yes	No	Yes	No	No	Yes	No	No	carvediolo
202	Both	Atorvastatin	No	No	No	Yes	No	No	No	No	No	No	No	No	
203	Both	Atorvastatin	No	No	Yes	No	Yes	No	Yes	No	No	Yes	Yes	No	metoprolol
204	4	Others	No	No	No	No	Yes	No	Yes	No	No	Yes	No	No	metoprolol
205	Aspirin	Atorvastatin	Yes	No	Yes	No	Yes	No	Yes	No	No	Yes	No	No	carvediolo
206	Both	Atorvastatin	No	No	Yes	No	No	No	No	No	No	No	No	No	
207	Aspirin	Atorvastatin	No	No	Yes	No	No	Yes	No	No	No	No	No	No	
208	Both	Atorvastatin	No	No	No	No	No	No	Yes	No	Yes	Yes	Yes	Yes	bisoprolol
209	Aspirin	Others	No	No	No	No	No	No	Yes	No	Yes	Yes	Yes	No	carvediolo
210	Aspirin	Atorvastatin	No	Yes	Yes	No	No	No	No	No	No	Yes	No	No	
211	Both	Atorvastatin	No	No	No	No	No	Yes	No	No	Yes	Yes	No	No	
212	Aspirin	Others	No	No	No	No	No	No	No	Yes	No	Yes	No	No	
213	4	Others	No	No	No	No	Yes	No	No	No	No	No	No	No	
214	4	Others	Yes	No	No	No	No	No	No	No	No	Yes	No	No	
215	4	Atorvastatin	No	No	No	No	No	Yes	Yes	No	No	Yes	No	No	metoprolol
216	Aspirin	Others	No	No	No	No	No	No	Yes	No	Yes	No	No	No	bisoprolol
217	4	Others	No	No	No	No	No	No	Yes	No	No	Yes	No	No	metoprolol
218	4	Others	Yes	No	No	No	No	Yes	Yes	No	Yes	Yes	Yes	No	metoprolol
219	Both	Atorvastatin	No	No	No	No	No	No	Yes	No	No	Yes	Yes	No	carvediolo
220	Both	Atorvastatin	No	No	No	No	No	No	No	No	No	Yes	No	No	
221	Aspirin	Others	No	No	No	No	No	No	No	No	No	Yes	No	No	
222	4	Atorvastatin	No	No	No	No	No	No	No	No	Yes	Yes	Yes	No	
223	Both	Atorvastatin	No	No	Yes	No	No	No	Yes	No	No	Yes	Yes	No	metoprolol
224	4	Others	No	Yes	No	No	No	Yes	Yes	No	Yes	Yes	Yes	No	carvediolo
225	Both	Atorvastatin	No	No	Yes	No	No	No	Yes	No	No	No	No	No	metoprolol
226	Both	Atorvastatin	No	No	No	No	No	No	Yes	No	No	Yes	Yes	Yes	bisoprolol
227	4	Others	No	No	No	No	No	Yes	Yes	No	Yes	Yes	Yes	No	carvediolo
228	Aspirin	Atorvastatin	No	No											
229	4	Others	No	No	Yes	No	No	Yes	No	No	Yes	Yes	No	No	
230	4	Others	No	No	No	No	No	No	No	No	Yes	Yes	Yes	No	
231	Both	Atorvastatin	No	No	No	No	No	No	Yes	No	Yes	No	Yes	No	bisoprolol
232	Both	Atorvastatin	No	No	No	Yes	No	No	Yes	No	No	Yes	No	No	bisoprolol
233	Both	Atorvastatin	No	No	No	No	No	No	No	No	No	No	No	No	
234	4	Others	No	No	Yes	No	No	No	No	No	No	Yes	No	No	
235	4	Atorvastatin	No	No	No	No	No	No	No	No	No	No	No	No	
236	Both	Atorvastatin	No	No	No	No	No	No	Yes	No	No	Yes	Yes	No	carvediolo
237	Aspirin	Atorvastatin	No	No	Yes	No	No	No	Yes	No	No	Yes	No	No	metoprolol
238	Both	Atorvastatin	No	No	No	No	No	No	No	No	No	No	No	No	
239	4	Others	No	No	No	No	No	No	Yes	No	No	Yes	Yes	No	metoprolol
240	4	Others	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	No	No	carvediolo
241	4	Others	Yes	No	Yes	No	Yes	No	Yes	Yes	No	Yes	No	No	metoprolol
242	Aspirin	Atorvastatin	No	No	No	No	No	Yes	Yes	No	Yes	Yes	Yes	No	bisoprolol
243	Both	Atorvastatin	No	Yes	No	Yes	Yes	No	Yes	No	No	Yes	Yes	No	metoprolol
244	Aspirin	Atorvastatin	No	No	Yes	No	Yes	No	Yes	No	No	No	No	Yes	metoprolol
245	4	Atorvastatin	No	No	No	Yes	Yes	No	Yes	No	No	Yes	Yes	No	bisoprolol
246	Aspirin	Atorvastatin	No	No	Yes	No	No	No	Yes	No	No	Yes	No	No	carvediolo
247	Both	Atorvastatin	No	No	No	No	No	No	Yes	No	No	Yes	No	No	carvediolo
248	4	Others	No	No	No	No	No	No	Yes	No	Yes	No	Yes	No	bisoprolol

data

	HT	HU	HV	HW	HX	HY	HZ	IA	IB	IC	ID	IE	IF	IG	IH
166		No	No	No	No	No	No	Both	Atorvastatin	No	Yes	No	No	No	No
167	Furosemide	No	No	No	No	No	No	Both	Atorvastatin	No	Yes	Yes	No	Yes	Yes
168		No	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes	No	No
169		No	No	No	No	No	No	Both	Atorvastatin	No	No	Yes	No	No	No
170		No	No	No	No	No	Yes	Aspirin	Atorvastatin	No	No	Yes	No	No	No
171	Dytor	No	No	No	No	No	No	Aspirin	Atorvastatin	Yes	No	No	No	Yes	No
172											No	No	Yes	No	No
173		Yes	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes	No	No
174	Dytor	No	No	No	No	No	No	4	Others	No	No	No	No	No	No
175	Dytor	No	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes	No	No
176		No	Yes	No	No	No	No	Aspirin	Atorvastatin	No	No	No	No	No	No
177											No	No	No	No	No
178	Dytor	No	No	No	No	No	No	4	Others	Yes	No	No	No	No	No
179	Dytor	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No	No	No
180	Dytor	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No	No	Yes	No	No	No
181	Furosemide	No	No	No	No	No	No	Aspirin	Simvastatin	No	No	No	No	No	No
182	Furosemide	Yes	No	No	No	No	No	Both	Atorvastatin	No	No	No	No	No	No
183	Furosemide	No	No	No	No	No	Yes	Both	Atorvastatin	No	No	No	Yes	No	No
184	Furosemide	Yes	Yes	No	No	No	No	Aspirin	Others	No	No	No	No	No	No
185	Dytor	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No	No	No
186		No	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes	No	No
187		No	No	No	No	No	No	4	Others	No	No	No	No	No	No
188											No	No	Yes	No	No
189		No	No	No	No	No	No	4	Others	No	No	No	No	No	No
190	Furosemide	No	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes	No	No
191											No	No	No	Yes	No
192	Dytor	Yes	Yes	No	No	No	No	Both	Atorvastatin	No	No	No	Yes	No	No
193	Dytor	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No	No	Yes	No	No	No
194	Furosemide	Yes	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes	No	No
195		No	No	No	No	No	Yes	Both	Atorvastatin	No	Yes	No	No	No	No
196	Dytor	No	No	No	No	No	No	4	Others	No	No	No	No	No	No
197	Furosemide	No	No	No	No	No	Yes	Both	Atorvastatin	No	No	No	No	No	No
198		No	No	No	No	No	Yes	Both	Atorvastatin	No	No	No	Yes	No	No
199	Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	Yes	No	No	No	No	Yes
200		No	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes	No	No
201	Furosemide	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No	No	No	Yes	No	No
202		No	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes	No	No
203	Furosemide	Yes	Yes	No	No	No	No	Both	Others	No	No	No	Yes	No	No
204	Furosemide	No	No	No	No	No	No	4	Others	No	No	No	No	No	No
205	Dytor	No	No	No	No	No	No	Aspirin	Atorvastatin	Yes	No	Yes	No	No	No
206		Yes	Yes	No	No	No	No	Both	Atorvastatin	No	No	No	Yes	No	No
207		No	No	No	No	No	No	4	Others	No	Yes	No	No	No	No
208	Dytor	No	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes	No	No
209	Dytor	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No	No	No	Yes	No	No
210	Furosemide	No	No	No	No	No	Yes	Aspirin	Atorvastatin	No	No	No	Yes	No	No
211	Furosemide	No	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes	No	No
212	Furosemide	No	No	No	No	No	No	Aspirin	Others	Yes	No	No	No	No	No
213		No	No	No	No	No	No	4	Others	No	No	No	No	No	No
214	Furosemide	No	No	No	No	No	No	4	Others	Yes	No	No	No	Yes	No
215	Furosemide	No	No	No	No	No	Yes	4	Others	Yes	No	Yes	No	No	No
216		No	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No	No	No
217	Furosemide	Yes	No	No	No	No	No	4	Others	No	Yes	No	No	No	No
218	Furosemide	No	No	No	No	No	Yes	Both	Atorvastatin	No	No	No	No	No	No
219	Dytor	No	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No	No	No
220	Furosemide	No	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes	No	No
221	Dytor	No	No	No	No	No	No	4	Others	No	Yes	No	No	No	No
222	Furosemide	No	No	No	No	No	No	4	Atorvastatin	No	Yes	No	No	No	No
223	Furosemide	Yes	No	No	No	No	Yes	Both	Atorvastatin	No	No	No	Yes	No	No
224	Dytor	No	No	No	No	No	Yes	Aspirin	Atorvastatin	No	No	No	Yes	No	No
225		No	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No	No	No
226	Furosemide	No	No	No	No	No	Yes	Both	Atorvastatin	No	Yes	No	Yes	No	No
227	Furosemide	No	No	No	No	No	No	Both	Atorvastatin	No	No	No	No	No	No
228											Yes	No	No	No	No
229	Furosemide	No	No	No	No	No	No	4	Others	No	No	No	No	Yes	No
230	Furosemide	No	No	No	No	No	No	4	Others	No	No	No	No	No	No
231		No	No	No	No	No	Yes	Both	Atorvastatin	No	No	No	No	No	No
232	Dytor	No	No	No	No	No	No	Both	Atorvastatin	No	Yes	No	No	No	No
233		No	No	No	No	No	No	Both	Atorvastatin	No	Yes	No	Yes	No	No
234	Furosemide	No	No	No	No	No	No	4	Others	No	No	No	No	No	No
235		No	No	No	No	No	No	4	Atorvastatin	No	No	No	No	No	No
236	Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	No	No	No	Yes	No	No
237	Furosemide	No	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes	No	No
238		No	No	No	No	No	No	4	Others	No	No	No	Yes	No	No
239	Dytor	No	No	No	No	No	No	Aspirin	Atorvastatin	No	No	No	No	No	No
240		No	No	No	No	No	No	Aspirin	Atorvastatin	Yes	No	No	No	No	No
241	Furosemide	No	No	No	No	No	No	Aspirin	Atorvastatin	Yes	No	No	No	Yes	No
242	Dytor	No	No	No	No	No	Yes	Aspirin	Atorvastatin	No	No	No	No	No	No
243	Furosemide	No	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes	No	No
244		Yes	No	No	No	No	Yes	Aspirin	Atorvastatin	No	No	No	Yes	No	No
245	Furosemide	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No	No	Yes	No	No	No
246	Dytor	No	No	No	No	No	Yes	Aspirin	Atorvastatin	No	No	No	Yes	No	No
247	Furosemide	Yes	Yes	No	No	No	No	Both	Others	No	No	Yes	No	No	No
248		No	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No	No	No

data

	II	IJ	IK	IL	IM	IN	IO	IP	IQ	IR	IS	IT	IU	IV	IW
166	No	No		180432	180432	73114	10000	1500	265046			No	52		
167	Yes	Yes		13181	13181	2315			15496			No	36		
168	No	No		29775	29775	12371			42146			No	46		
169	No	No		129732	129732	116669		2000	248401			No	47		
170	No	No		41926	41926	23352			65278			No	52		
171	No	No		83985	27538		5000	5000	93985			No			
172	No	No		271599	271599	97093			368692			Yes			
173	No	No		203276	203276	20489		2000	225765			No	42		
174	No	Yes		20677	85084	40856			61533			No	38		
175	No	No		34979	34979	14663	2000	5000	56642			No	42		
176	Yes	No		27417	27417	5468			32885			No	52		
177	No	No		41373	41373	27969			69342			Yes			
178	No	No		19091	19091	5238			24329			No	57	Cardiac caus	
179	No	No		37332	37332	30706		2000	70038			No			
180	No	No		18761	18761	91615	2000	2500	114876			No	62		
181	No	No	?cardiac amy	59501	59501	21542			81043			No	77	Cardiac caus	
182	No	No		106143	106143	63537			169680			No	36		
183	No	No		36267	36267	8882		500	45649			No	47		
184	No	Yes		22865	22865	16799	500	1500	41664			No	58		
185	No	No		24569	24569	11574	500	1500	38143			No	76	Cardiac caus	
186	No	No		36104	36104	20177			56281			No	82		
187	No	No		22593	22593	101048			123641			No	42		
188	No	No		92082	92082	56195		1000	149277			Yes			
189	No	Yes		47677	47677	13550			61227			No	29		
190	No	No		21697	21697	10768			32465			No	65	Infection	
191	No	No		9594	9594	7326			16920			Yes			
192	No	No		20925	20925	83495	500	5000	109920			No	50	Cardiac caus	
193	No	No		11050	11050	15311			26361			No	52		
194	No	No		42120	42120	51214	5000	2500	100834			No	53		
195	No	No		19543	19543	227216			246759			No	62		
196	No	No		212891	212891	106951			319842			No	29		
197	Yes	No		21599	21599	58486		500	80585			No	32		
198	No	No		62725	62725	159833		500	223058			No	56	Cardiac caus	
199	No	No		41198	69724	13915	7	3000	65613			No	42		
200	No	No		6280	6280		5000	1000	12280			No	60	Cardiac caus	
201	No	No		69966	69966	25110	0	0	95076			No	36		
202	No	No		32495	32495	9029	5000	2500	49024			No	48	Cardiac caus	
203	No	No		22531	22531	9821			32352			No	33		
204	No	No		15499	15499	4689			20188			No	68	Cardiac caus	
205	No	No		35753	35753	37323	2500		75576			No	47	Cardiac caus	
206	No	No		91021	91021	96619			187640			No	68		
207	No	No		50990	50990	17774			68764			No	36		
208	No	No		33540	33540	193719			227259			No	48		
209	No	No		17237	17237	29505	2500	5000	54242			No	42		
210	No	No		147843	55976				147843			No	36		
211	No	No		69308	69308		500		69808			No	46		
212	No	No		96912	96912	21769			118681			No	28		
213	No	No	constrictive p	151874	10575	50170	25000	10000	237044			No	79		
214	No	No		29682	29682	148774			178456			No	82	Cardiac caus	
215	No	No		54312	54312	19978			74290			No	57		
216	No	No		154394	154394	61670	5000	5000	226064			No	77	Cardiac caus	
217	No	No		69164	69164	125046			194210			No	39		
218	No	No		21194	21194		2500		23694			No	73		
219	No	No		32519	32519			2500	35019			No	57		
220	No	No		35235	35235	36821	500		72556			No	87	Cardiac caus	
221	Yes	No		42723	42723	22715	20000	10000	95438			No	79	Others	
222	No	No		40123	40123	13109		5000	58232			No	89	Others	
223	No	No		31746	31746			2000	33746			No	79	Cardiac caus	
224	No	No		62048	62048	169243			231291			No	52		
225	No	No		55166	55166		5000	1000	61166			No	40		
226	No	No		145207	145207				145207			No	82	Cardiac caus	
227	No	Yes		52734	52734	20000			72734			No	24		
228	No	No		141072	141072		15000	10000	166072			Yes			
229	No	No		79237	79237				79237			No	92	Cardiac caus	
230	No	Yes		86229	86229				86229			No	33		
231	No	No		162333	162333	84734			247067			No	57		
232	No	No		19410	19410		5000	5000	29410			No	43		
233	No	No		25203	25203				25203			No	45		
234	No	No	peripartum c	22551	22551				22551			No	39		
235	No	No	effusion	74430	74430	2524			76954			No	55		
236	No	No		91908	91908	60811			152719			No	59		
237	No	No		41749	41749	40504			82253			No	59		
238	No	No		48262	48262	48300			96562			No	48		
239	No	No		51765	51765	100015			151780			No	72		
240	No	No		9885	9885	76748			86633			No	39		
241	No	No		36340	36340	242			36582			No	66		
242	Yes	No		24156	24156	65634			89790			No	60		
243	No	No		58452	58452				58452			No	81		
244	No	No		14140	14140				14140			No	74		
245	No	No		71261	71261	23180			94441			No	88		
246	No	No		54407	54407	30402			84809			No	78		
247	No	No		67496	67496	199706			267202			No	42		
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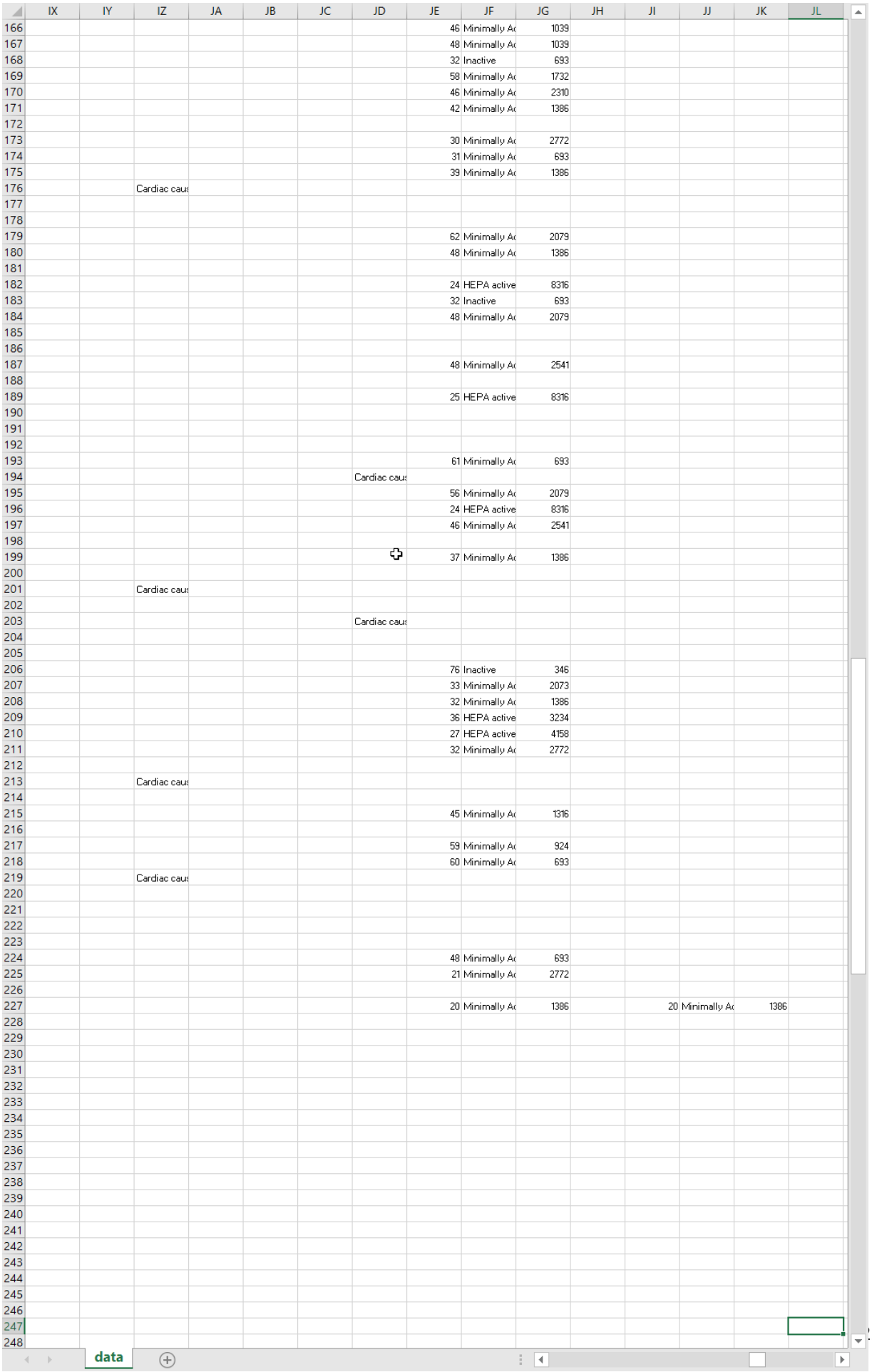

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166								46	Minimally Ac	1039					
167								48	Minimally Ac	1039					
168								32	Inactive	693					
169								58	Minimally Ac	1732					
170								46	Minimally Ac	2310					
171								42	Minimally Ac	1386					
172															
173								30	Minimally Ac	2772					
174								31	Minimally Ac	693					
175								39	Minimally Ac	1386					
176			Cardiac caus												
177															
178															
179								62	Minimally Ac	2079					
180								48	Minimally Ac	1386					
181															
182								24	HEPA active	8316					
183								32	Inactive	693					
184								48	Minimally Ac	2079					
185															
186															
187								48	Minimally Ac	2541					
188															
189								25	HEPA active	8316					
190															
191															
192															
193								61	Minimally Ac	693					
194							Cardiac caus								
195								56	Minimally Ac	2079					
196								24	HEPA active	8316					
197								46	Minimally Ac	2541					
198															
199								37	Minimally Ac	1386					
200															
201			Cardiac caus												
202															
203							Cardiac caus								
204															
205															
206								76	Inactive	346					
207								33	Minimally Ac	2073					
208								32	Minimally Ac	1386					
209								36	HEPA active	3234					
210								27	HEPA active	4158					
211								32	Minimally Ac	2772					
212															
213			Cardiac caus												
214															
215								45	Minimally Ac	1316					
216															
217								59	Minimally Ac	924					
218								60	Minimally Ac	693					
219			Cardiac caus												
220															
221															
222															
223															
224								48	Minimally Ac	693					
225								21	Minimally Ac	2772					
226															
227								20	Minimally Ac	1386		20	Minimally Ac	1386	
228															
229															
230															
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	JN	JO	JP	JQ	JR	JS	JT	JU	JV	JW	JX	JY	JZ	KA	KB
166			36	64	1	11/18/2017	12-07-17	Yes	Yes	Yes		9			06-07-18
167			76	24	3.1	11/18/2017	11/19/2017	Yes	Yes	Yes		9			5/19/2018
168			72	28	2.6	11/21/2017	11/27/2017	Yes	Yes	Yes		9			5/27/2018
169			62	38	2	11-08-17	12-06-17	Yes	Yes	Yes		9			06-06-18
170			75	25	3	11-01-17	11-07-17	Yes	Yes	Yes		9			05-07-18
171			40	60	1.1	11-01-17	11-12-17	Yes	Yes	Yes		9			05-12-18
172			16	84	0.5	11-03-17	11-12-17	No	No	No	No	2			12-12-17
173			68	32	2.3	11-04-17	11-07-17	Yes	Yes	Yes		9			05-07-18
174			47	53	1.3	11/19/2017	11/22/2017	Yes	Yes	Yes		9			5/22/2018
175			57	43	1.8	11-12-17	11/15/2017	Yes	Yes	Yes		9			5/15/2018
176			78	22	3.3	11/17/2017	11/21/2017	Yes	No	No	No	2			2/21/2018
177			80	20	3.6	11-04-17	11-06-17	No	No	No	No	2			12-06-17
178			84	16	4.5	11/27/2017	11/30/2017	No	No	No	No	2			12/30/2017
179			81	19	6.8	12/13/2017	12/20/2017	Yes	Yes	Yes		9			6/20/2018
180			20	80	0.6	12/30/2017	12-03-17	Yes	Yes	Yes		9			06-03-18
181			60	40	1.9	12-01-17	12-04-17	No	No	No	No	2			01-04-18
182			83	17	4.2	12-02-17	12/21/2017	Yes	Yes	Yes		9			6/21/2018
183			87	13	5.1	12-07-17	12-12-17	Yes	Yes	Yes		9			06-12-18
184			64	36	2.1	12-05-17	12-09-17	Yes	Yes	Yes		9			06-09-18
185			18	82	0.6	12-04-17	12-07-17	No	No	No	No	2			01-07-18
186			66	34	2.2	12-02-17	12-08-17	No	No	No	No	2			01-08-18
187			79	21	3.5	12-08-17	12-09-17	Yes	Yes	Yes		9			06-09-18
188			66	34	2.2	12-06-17	12-09-17	No	No	No	No	2			01-09-18
189			52	48	1.5	12-03-17	12-09-17	Yes	Yes	Yes		9			06-09-18
190			67	33	2.3	12-05-17	12-11-17	No	No	No	No	2			01-11-18
191			86	14	5	12-01-17	12-02-17	No	No	No	No	2			01-02-18
192			79	21	3.5	12-07-17	12/13/2017	No	No	No	No	2			1/13/2018
193			81	19	3.3	12/22/2017	12/24/2017	Yes	Yes	Yes		9			6/24/2018
194			77	23	3.2	12/20/2017	12/27/2017	Yes	Yes	No	No	2			6/27/2018
195			82	18	3	12/20/2017	12/24/2017	Yes	Yes	Yes		9			6/24/2018
196			84	16	4.4	12/14/2017	12/25/2017	Yes	Yes	Yes		9			6/25/2018
197			68	32	2.3	12/24/2017	12/27/2017	Yes	Yes	Yes		9			6/27/2018
198			49	51	1.4	12-11-17	12/18/2017	No	No	No	No	2			1/18/2018
199			84	16	4.4	12-05-17	12/15/2017	Yes	Yes	Yes		9			6/15/2018
200			79	21	3.6	12-12-17	12/14/2017	No	No	No	No	2			1/14/2018
201			77	23	3.2	12/13/2017	12/30/2017	Yes	No	No	No	2			3/30/2018
202			57	43	1.8	12/29/2017	01-03-18	No	No	No	No	2			02-03-18
203			87	13	5.2	12/18/2017	12/22/2017	Yes	Yes	No					6/22/2018
204			66	34	2.2	12-12-17	12/14/2017	No	No	No	No	2			1/14/2018
205			84	16	4.5	12/17/2017	12/25/2017	No	No	No	No	2			1/25/2018
206			85	15	4.8	12-02-17	12-07-17	Yes	Yes	Yes		9			06-07-18
207			78	22	3.4	12-12-17	12/17/2017	Yes	Yes	Yes		9			6/17/2018
208			72	28	2.6	12/15/2017	12/21/2017	Yes	Yes	Yes		9			6/21/2018
209			78	22	3.3	12/26/2017	12/29/2017	Yes	Yes	Yes		9			6/29/2018
210			50	50	1.4	12-05-17	12/17/2017	Yes	Yes	Yes		9			6/17/2018
211			68	32	2.3	4/20/2017	4/25/2017	Yes	Yes	Yes		9			10/25/2017
212			41	59	1.1	5/26/2017	06-09-17	Yes	Yes	Yes	Yes	1			06-09-18
213			61	39	1.9	07-03-17	08-02-17	Yes	No	No	No	2			11-02-17
214			62	38	2	08-10-17	09-07-17	No	No	No	No	2			10-07-17
215			49	51	1.4	10-11-17	10/21/2017	Yes	Yes	Yes		9			4/21/2018
216			58	42	1.8	10-06-17	10/22/2017	No	No	No	No	2			11/22/2017
217			75	25	2.9	08-07-17	8/15/2017	Yes	Yes	Yes		9			2/15/2018
218			51	49	1.5	10/30/2017	11-04-17	Yes	Yes	Yes		9			05-04-18
219			51	49	1.5	08-01-17	08-08-17	Yes	No	No	No	2			11-08-17
220			19	81	0.6	07-11-17	7/14/2017	No	No	No	No	2			8/14/2017
221			79	21	3.4	5/13/2017	5/18/2017	No	No	No	No	2			6/18/2017
222			84	16	4.3	05-07-17	5/14/2017	No	No	No	No	2			6/14/2017
223			84	16	4.5	06-02-17	06-08-17	No	No	No	No	2			07-08-17
224			57	43	1.8	07-07-17	7/17/2017	Yes	Yes	Yes		9			1/17/2018
225			56	44	1.7	10-04-17	10/13/2017	Yes	Yes	Yes		9			4/13/2018
226			44	56	1.2	4/18/2017	4/29/2017	No	No	No	No	2			5/29/2017
227			71	29	2.6	02-06-17	02-10-17	Yes	Yes	Yes	Yes	1			02-10-18
228			67	33	2.3	8/27/2017	09-09-17	No	No	No	No	2			10-09-17
229			55	45	1.7	04-12-17	4/26/2017	No	No	No	No	2			5/26/2017
230			69	31	2.4	2/13/2017	2/24/2017						Alive	12/27/2017	12/27/2017
231			83	17	4.1	5/29/2017	06-03-17						Alive	4/27/2018	4/27/2018
232			62	38	2	3/24/2017	3/29/2017						Alive	3/20/2018	3/20/2018
233			53	47	1.6	4/28/2017	05-03-17						Alive	01-11-18	01-11-18
234			90	10	6.1	3/15/2017	3/20/2017						Alive	4/28/2018	4/28/2018
235			56	44	1.7	06-05-17	6/17/2017						Alive	6/20/2017	6/20/2017
236			79	21	3.5	07-12-17	7/21/2017						Alive	11/21/2017	11/21/2017
237			47	53	1.3	07-02-17	07-08-17						Alive	4/26/2018	4/26/2018
238			87	13	5.3	08-06-17	8/14/2017						Alive	8/27/2018	8/27/2018
239			39	61	1.1	12/25/2017	01-01-18						Alive	08-03-18	08-03-18
240			74	26	2.8	12-04-17	12-05-17						Alive	04-11-18	04-11-18
241			56	44	1.7	2/18/2017	12/25/2017						Alive	12/25/2017	12/25/2017
242			68	32	2.3	11-10-17	11/16/2017						Alive	06-05-18	06-05-18
243			71	29	2.5	11/16/2017	11/27/2017						Alive	03-06-18	03-06-18
244			67	33	2.2	11-03-17	11-08-17						Alive	11-08-17	11-08-17
245			90	10	6.4	11-02-17	11-11-17						Alive	5/19/2018	5/19/2018
246			83	17	4.1	11/23/2017	11/24/2017						Alive	09-03-18	09-03-18
247			67	33	2.7	11/27/2017	12-02-17						Alive	7/31/2018	7/31/2018
248			86	14	4.8	11/25/2017	11/30/2017						Alive	05-05-18	05-05-18

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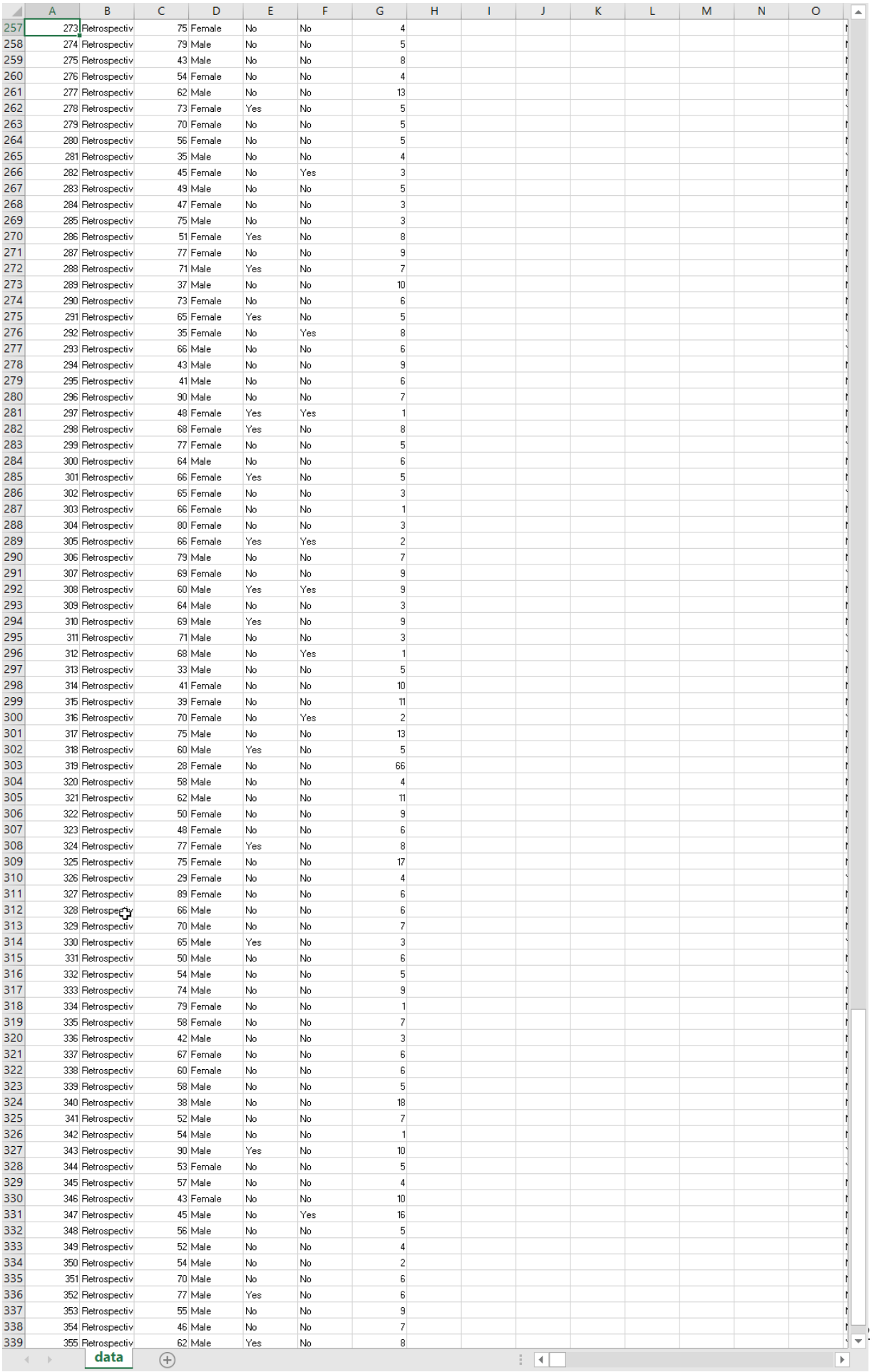

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261	277	Retrospectiv	62	Male	No	No	13								
262	278	Retrospectiv	73	Female	Yes	No	5								
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266	282	Retrospectiv	45	Female	No	Yes	3								
267	283	Retrospectiv	49	Male	No	No	5								
268	284	Retrospectiv	47	Female	No	No	3								
269	285	Retrospectiv	75	Male	No	No	3								
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272	288	Retrospectiv	71	Male	Yes	No	7								
273	289	Retrospectiv	37	Male	No	No	10								
274	290	Retrospectiv	73	Female	No	No	6								
275	291	Retrospectiv	65	Female	Yes	No	5								
276	292	Retrospectiv	35	Female	No	Yes	8								
277	293	Retrospectiv	66	Male	No	No	6								
278	294	Retrospectiv	43	Male	No	No	9								
279	295	Retrospectiv	41	Male	No	No	6								
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285	301	Retrospectiv	66	Female	Yes	No	5								
286	302	Retrospectiv	65	Female	No	No	3								
287	303	Retrospectiv	66	Female	No	No	1								
288	304	Retrospectiv	80	Female	No	No	3								
289	305	Retrospectiv	66	Female	Yes	Yes	2								
290	306	Retrospectiv	79	Male	No	No	7								
291	307	Retrospectiv	69	Female	No	No	9								
292	308	Retrospectiv	60	Male	Yes	Yes	9								
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298	314	Retrospectiv	41	Female	No	No	10								
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303	319	Retrospectiv	28	Female	No	No	66								
304	320	Retrospectiv	58	Male	No	No	4								
305	321	Retrospectiv	62	Male	No	No	11								
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310	326	Retrospectiv	29	Female	No	No	4								
311	327	Retrospectiv	89	Female	No	No	6								
312	328	Retrospectiv	66	Male	No	No	6								
313	329	Retrospectiv	70	Male	No	No	7								
314	330	Retrospectiv	65	Male	Yes	No	3								
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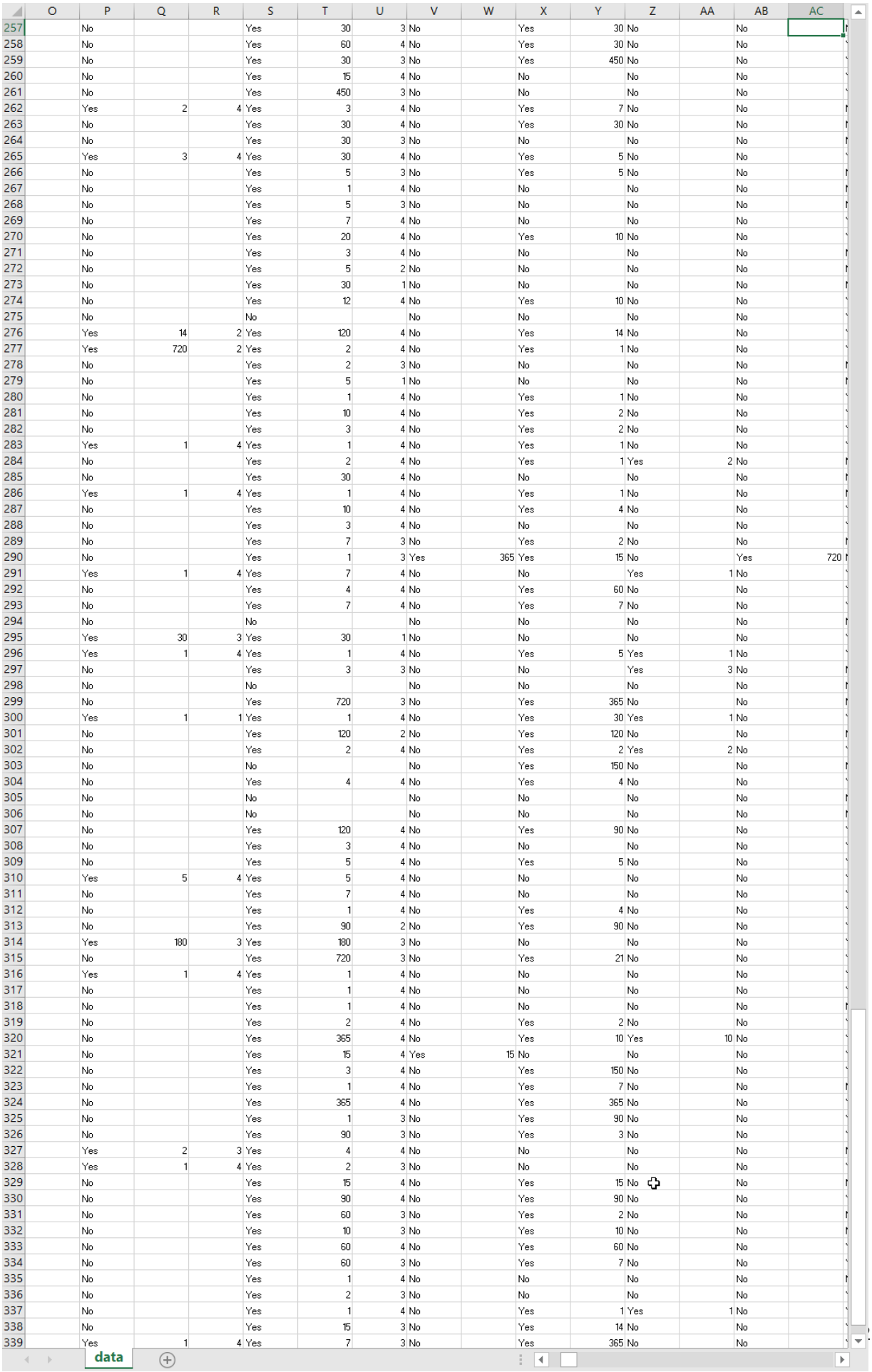

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259		No			Yes	30	3	No		Yes	450	No		No	
260		No			Yes	15	4	No		No		No		No	
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262		Yes	2	4	Yes	3	4	No		Yes	7	No		No	
263		No			Yes	30	4	No		Yes	30	No		No	
264		No			Yes	30	3	No		No		No		No	
265		Yes	3	4	Yes	30	4	No		Yes	5	No		No	
266		No			Yes	5	3	No		Yes	5	No		No	
267		No			Yes	1	4	No		No		No		No	
268		No			Yes	5	3	No		No		No		No	
269		No			Yes	7	4	No		No		No		No	
270		No			Yes	20	4	No		Yes	10	No		No	
271		No			Yes	3	4	No		No		No		No	
272		No			Yes	5	2	No		No		No		No	
273		No			Yes	30	1	No		No		No		No	
274		No			Yes	12	4	No		Yes	10	No		No	
275		No			No			No		No		No		No	
276		Yes	14	2	Yes	120	4	No		Yes	14	No		No	
277		Yes	720	2	Yes	2	4	No		Yes	1	No		No	
278		No			Yes	2	3	No		No		No		No	
279		No			Yes	5	1	No		No		No		No	
280		No			Yes	1	4	No		Yes	1	No		No	
281		No			Yes	10	4	No		Yes	2	No		No	
282		No			Yes	3	4	No		Yes	2	No		No	
283		Yes	1	4	Yes	1	4	No		Yes	1	No		No	
284		No			Yes	2	4	No		Yes	1	Yes	2	No	
285		No			Yes	30	4	No		No		No		No	
286		Yes	1	4	Yes	1	4	No		Yes	1	No		No	
287		No			Yes	10	4	No		Yes	4	No		No	
288		No			Yes	3	4	No		No		No		No	
289		No			Yes	7	3	No		Yes	2	No		No	
290		No			Yes	1	3	Yes	365	Yes	15	No		Yes	720
291		Yes	1	4	Yes	7	4	No		No		Yes	1	No	
292		No			Yes	4	4	No		Yes	60	No		No	
293		No			Yes	7	4	No		Yes	7	No		No	
294		No			No			No		No		No		No	
295		Yes	30	3	Yes	30	1	No		No		No		No	
296		Yes	1	4	Yes	1	4	No		Yes	5	Yes	1	No	
297		No			Yes	3	3	No		No		Yes	3	No	
298		No			No			No		No		No		No	
299		No			Yes	720	3	No		Yes	365	No		No	
300		Yes	1	1	Yes	1	4	No		Yes	30	Yes	1	No	
301		No			Yes	120	2	No		Yes	120	No		No	
302		No			Yes	2	4	No		Yes	2	Yes	2	No	
303		No			No			No		Yes	150	No		No	
304		No			Yes	4	4	No		Yes	4	No		No	
305		No			No			No		No		No		No	
306		No			No			No		No		No		No	
307		No			Yes	120	4	No		Yes	90	No		No	
308		No			Yes	3	4	No		No		No		No	
309		No			Yes	5	4	No		Yes	5	No		No	
310		Yes	5	4	Yes	5	4	No		No		No		No	
311		No			Yes	7	4	No		No		No		No	
312		No			Yes	1	4	No		Yes	4	No		No	
313		No			Yes	90	2	No		Yes	90	No		No	
314		Yes	180	3	Yes	180	3	No		No		No		No	
315		No			Yes	720	3	No		Yes	21	No		No	
316		Yes	1	4	Yes	1	4	No		No		No		No	
317		No			Yes	1	4	No		No		No		No	
318		No			Yes	1	4	No		No		No		No	
319		No			Yes	2	4	No		Yes	2	No		No	
320		No			Yes	365	4	No		Yes	10	Yes	10	No	
321		No			Yes	15	4	Yes	15	No		No		No	
322		No			Yes	3	4	No		Yes	150	No		No	
323		No			Yes	1	4	No		Yes	7	No		No	
324		No			Yes	365	4	No		Yes	365	No		No	
325		No			Yes	1	3	No		Yes	90	No		No	
326		No			Yes	90	3	No		Yes	3	No		No	
327		Yes	2	3	Yes	4	4	No		No		No		No	
328		Yes	1	4	Yes	2	3	No		No		No		No	
329		No			Yes	15	4	No		Yes	15	No		No	
330		No			Yes	90	4	No		Yes	90	No		No	
331		No			Yes	60	3	No		Yes	2	No		No	
332		No			Yes	10	3	No		Yes	10	No		No	
333		No			Yes	60	4	No		Yes	60	No		No	
334		No			Yes	60	3	No		Yes	7	No		No	
335		No			Yes	1	4	No		No		No		No	
336		No			Yes	2	3	No		No		No		No	
337		No			Yes	1	4	No		Yes	1	Yes	1	No	
338		No			Yes	15	3	No		Yes	14	No		No	
339		Yes	1	4	Yes	7	3	No		Yes	365	No		No	

data

	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR
257	No		No		No		No		No			3			112
258	Yes	30	Yes	30	No		Yes	45	No			4			100
259	Yes	30	No		No		Yes	30	Yes	20		3			110
260	Yes	30	No		No		No		No			4			139
261	Yes	30	No		No		Yes	7	Yes	7		3			106
262	No		No		No		No		Yes	3		4			80
263	No		No		No		No		Yes	30		4			113
264	No		No		Yes	3	No		Yes	3		3			96
265	Yes	5	No		No		Yes	5	No			4			90
266	No		No		No		No		Yes	5		3			112
267	No		No		No		No		No			4			100
268	No		No		Yes	5	No		No			3			110
269	Yes	7	No		No		Yes	7	No			4			124
270	Yes	20	No		No		No		No			4			110
271	No		No		No		Yes	2	Yes	2		4			100
272	No		No		No		No		Yes	5		2			116
273	No		No		No		No		No			1			116
274	Yes	10	Yes	10	No		No		No			4			102
275	Yes	3	No		No		Yes	3	Yes	3		4			92
276	Yes	14	No		No		Yes	14	No			3			99
277	Yes	2	No		No		No		No			4			104
278	No		No		No		No		Yes	3		3			120
279	No		No		No		No		No			4			110
280	Yes	1	No		No		No		No			4			80
281	Yes	10	No		No		No		No			4			130
282	Yes	3	Yes	3	No		Yes	10	No			4			132
283	Yes	1	No		No		Yes	1	No			4			96
284	No		No		Yes	2	Yes	2	Yes	1		4			84
285	No		No		No		Yes	30	No			4			166
286	No		No		No		No		No			4			112
287	Yes	10	Yes	10	No		Yes	10	No			4			90
288	Yes	3	Yes	3	No		Yes	3	No			4			106
289	No		No		No		No		No			3			88
290	No		No		No		Yes	2	No			3			104
291	Yes	2	No		No		No		No			4			90
292	Yes	60	No		Yes	2	No		No			4			99
293	Yes	7	Yes	7	Yes	30	Yes	7	No			4			96
294	No		No		No		Yes	60	Yes	7		4			82
295	Yes	30	No		No		No		Yes	30		3			78
296	Yes	1	No		No		No		No			4			112
297	No		No		No		Yes	7	No			3			80
298	No		No		No		No		Yes	12		1			104
299	No		No		Yes	60	No		No			3			100
300	Yes	1	No		No		No		Yes	1		4			90
301	No		No		No		No		No			2			112
302	Yes	2	Yes	2	No		Yes	2	No			4			134
303	No		No		No		No		No			3			100
304	Yes	4	Yes	4	No		No		No			4			130
305	No		No		No		No		No			2			86
306	No		No		No		No		No			1			60
307	Yes	30	Yes	30	No		No		No			4			92
308	Yes	3	Yes	3	No		Yes	3	Yes	3		4			120
309	Yes	5	No		No		Yes	5	Yes	1		4			100
310	Yes	5	Yes	5	No		Yes	5	No			4			82
311	Yes	10	No		No		Yes	7	No			4			92
312	Yes	4	No		No		Yes	4	Yes	1		4			84
313	Yes	90	Yes	90	No		No		No			2			96
314	Yes	180	No		No		Yes	10	No			3			72
315	Yes	21	Yes	21	No		No		Yes	7		3			108
316	Yes	1	Yes	1	No		No		No			4			100
317	Yes	1	No		No		No		No			4			82
318	No		No		No		No		Yes	1		4			100
319	Yes	2	No		No		No		Yes	2		4			72
320	Yes	10	No		No		Yes	4	No			4			150
321	Yes	15	Yes	15	No		No		No			4			99
322	Yes	3	Yes	3	No		No		No			4			117
323	No		No		No		No		Yes	1		4			72
324	Yes	30	Yes	30	Yes	30	No		No			4			58
325	Yes	30	No		No		Yes	7	No			3			130
326	Yes	90	Yes	90	Yes	90	No		No			3			110
327	No		No		No		Yes	3	Yes	1		4			96
328	Yes	1	No		No		Yes	1	No			3			112
329	No		No		No		No		No			4			99
330	Yes	90	Yes	90	No		Yes	90	No			3			100
331	No		Yes	30	No		Yes	30	Yes	60		3			95
332	No		No		Yes	10	Yes	3	No			3			148
333	Yes	90	No		No		Yes	60	No			4			100
334	Yes	30	Yes	30	Yes	7	Yes	60	Yes	1		4			80
335	No		No		No		Yes	1	No			4			120
336	Yes	2	Yes	2	No		Yes	3	Yes	1		3			83
337	Yes	1	Yes	1	No		No		No			4			128
338	Yes	15	No		Yes	14	Yes	90	Yes	60		3			108
339	Yes	7	Yes	7	No		No		No			4			110

data

	AS	AT	AU	AV	AW	AX	AY	AZ	BA	BB	BC	BD	BE	BF	BG
257	150	90	36	90	15							No	No	No	No
258	140	90	30	99	15							No	No	No	No
259	100	60	20	97	15							No	No	No	No
260	180	40	30	56	15							No	No	No	No
261	110	90	32	93	15							Yes	No	No	No
262	200	110	20	89	15							Yes	No	No	No
263	180	80	24	96	15							Yes	No	No	No
264	120	70	24	89	15							Yes	No	No	No
265	100	64	24	88	15							No	No	No	No
266	140	80	44	100	15							Yes	No	No	No
267	240	140	42	100	9							No	No	No	No
268	90	80	24	85	15							Yes	No	No	No
269	210	110	36	95	15							No	No	No	No
270	180	90	36	85	14							No	No	No	No
271	200	110	36	85	15							Yes	No	No	No
272	250	110	40	90	15							No	No	No	No
273	90	50	44	95	15							No	No	Yes	No
274	100	60	28	86	10							Yes	No	No	No
275	130	60	30	100	10							No	No	No	No
276	140	90	24	80	15							Yes	No	No	No
277	120	80	40	82	15							No	No	No	No
278	100	60	30	82	15							No	No	No	No
279	190	100	30	90	15							Yes	No	No	No
280	110	80	32	94	15							No	No	No	No
281	0	0	38	75	3							Yes	No	No	No
282	110	70	34	88	15							No	No	No	No
283	180	96	32	74	15							No	No	No	No
284	160	90	20	86	15							Yes	No	No	No
285	180	110	46	74	15							No	No	No	No
286	130	80	26	72	15							No	No	No	No
287	90	40	32	85	15							No	No	No	No
288	130	70	20	85	15							No	No	No	No
289	100	60	36	50	15							No	No	No	No
290	180	110	42	84	15							No	No	No	No
291	170	110	20	88	15							No	No	No	No
292	110	70	24	85	13							No	Yes	No	No
293	140	90	24	92	15							No	No	No	No
294	92	60	14	75	15							Yes	No	Yes	No
295	120	60	16	90	15							Yes	No	No	No
296	220	100	30	86	15							Yes	No	No	No
297	146	100	24	96	15							No	No	No	No
298	110	70	16	100	15							Yes	No	No	No
299	110	80	22	100	15							Yes	No	No	No
300	180	110	25	82	15							No	No	No	No
301	140	80	24	89	15							No	No	No	No
302	140	90	24	80	15							No	No	No	No
303	120	80	22	95	15							Yes	No	No	No
304	120	80	40	88	15							No	No	No	No
305	160	80	24	96	15							No	No	No	No
306	0	0	14	88	3							Yes	No	No	No
307	110	70	18	82	15							Yes	No	No	No
308	140	60	30	86	15							Yes	No	No	No
309	120	80	34	92	15							Yes	No	No	No
310	200	100	45	96	15							Yes	No	No	No
311	110	60	26	86	15							No	No	No	No
312	200	100	40	82	15							No	No	No	No
313	130	80	18	99	15							Yes	No	No	No
314	150	80	36	98	15							Yes	No	No	No
315	110	70	28	82	15							No	No	No	No
316	150	80	30	92	15							No	No	No	No
317	210	110	44	82	15							No	No	No	No
318	90	60	30	82	15							No	No	No	No
319	140	80	20	96	15							No	No	No	No
320	200	100	46	90	15							No	No	No	No
321	140	100	24	99	15							No	No	No	No
322	210	80	24	99	15							Yes	No	No	No
323	160	80	24	94	15							No	No	No	No
324	110	70	48	60	15							No	No	No	No
325	180	80	32	76	15							No	No	No	No
326	110	70	24	82	15							No	No	No	No
327	90	60	36	83	15							No	No	No	No
328	130	90	44	92	15							Yes	No	No	No
329	130	80	24	95	15							No	Yes	No	No
330	170	80	24	96	15							No	No	No	No
331	100	60	20	94	15							Yes	No	No	No
332	160	80	42	84	15							No	No	No	No
333	120	80	32	100	15							No	No	No	No
334	100	60	32	86	15							Yes	Yes	No	No
335	200	100	40	63	15							No	No	No	No
336	110	70	36	89	15							No	No	No	No
337	150	100	44	50	15							No	No	Yes	No
338	140	90	20	96	15							Yes	Yes	No	No
339	130	90	26	94	15							Yes	No	Yes	No

data

	BH	BI	BJ	BK	BL	BM	BN	BO	BP	BQ	BR	BS	BT	BU	BV
257	No	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
258	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	Yes	No	No	No
259	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	Yes
260	No	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
261	No	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
262	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
263	No	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
264	No	No	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	Yes	No
265	No	Yes	Yes	Yes	No	Yes	Basal fine cr	No	Yes	No	No	Yes	No	No	No
266	No	Yes	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
267	No	No	No	No	No	No		No	No	No	No	No	No	No	No
268	No	Yes	Yes	No	No	No		No	No	No	No	No	No	No	No
269	Yes	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
270	No	No	Yes	Yes	No	Yes	Coarse crepi	No	Yes	No	No	No	No	No	No
271	No	Yes	Yes	No	No	Yes	Coarse crepi	Yes	No	No	No	No	No	No	No
272	No	Yes	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
273	No	No	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
274	No	Yes	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
275	No	No	Yes	No	No	No		No	No	No	No	No	No	No	No
276	No	No	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	Yes	No
277	No	Yes	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
278	No	No	No	No	No	No		Yes	Yes	No	No	No	No	No	No
279	No	No	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
280	No	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
281	No	Yes	Yes	No	No	No		No	No	No	No	No	No	No	No
282	No	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
283	No	Yes	Yes	No	Yes	Yes	Coarse crepi	No	No	No	Yes	No	No	No	No
284	No	Yes	Yes	No	No	Yes	Basal fine cr	No	Yes	No	No	No	No	No	No
285	No	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
286	No	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
287	No	Yes	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
288	No	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
289	No	No	No	No	No	No		No	No	No	No	No	No	No	No
290	No	Yes	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
291	No	No	Yes	Yes	No	Yes	Coarse crepi	No	Yes	No	No	No	No	No	No
292	No	Yes	Yes	Yes	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
293	Yes	Yes	Yes	No	No	Yes	Basal fine cr	No	Yes	No	No	No	No	No	No
294	No	No	No	No	No	No		No	No	No	No	No	No	No	No
295	Yes	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
296	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
297	No	No	No	No	No	No		No	No	No	No	No	No	No	No
298	No	No	Yes	No	No	No		No	No	No	No	No	No	No	No
299	Yes	Yes	No	No	No	No		No	No	No	No	No	No	No	No
300	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
301	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
302	No	Yes	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
303	No	Yes	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
304	No	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
305	No	No	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
306	No	No	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
307	No	Yes	No	No	No	No		No	No	No	No	No	No	No	No
308	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
309	No	Yes	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
310	No	No	Yes	No	No	Yes	Coarse crepi	No	Yes	No	No	No	No	No	No
311	No	No	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
312	No	Yes	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
313	Yes	Yes	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
314	No	No	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
315	No	No	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
316	No	No	No	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
317	No	No	No	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
318	No	No	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
319	No	Yes	Yes	Yes	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
320	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	No	No	No	No	No
321	No	Yes	Yes	No	No	Yes	Coarse crepi	No	No	No	Yes	No	No	No	No
322	No	Yes	Yes	No	No	Yes	Basal fine cr	No	No	No	No	No	No	No	No
323	No	Yes	Yes	No	No	Yes	Coarse crepi	Yes	No	No	No	No	No	No	No
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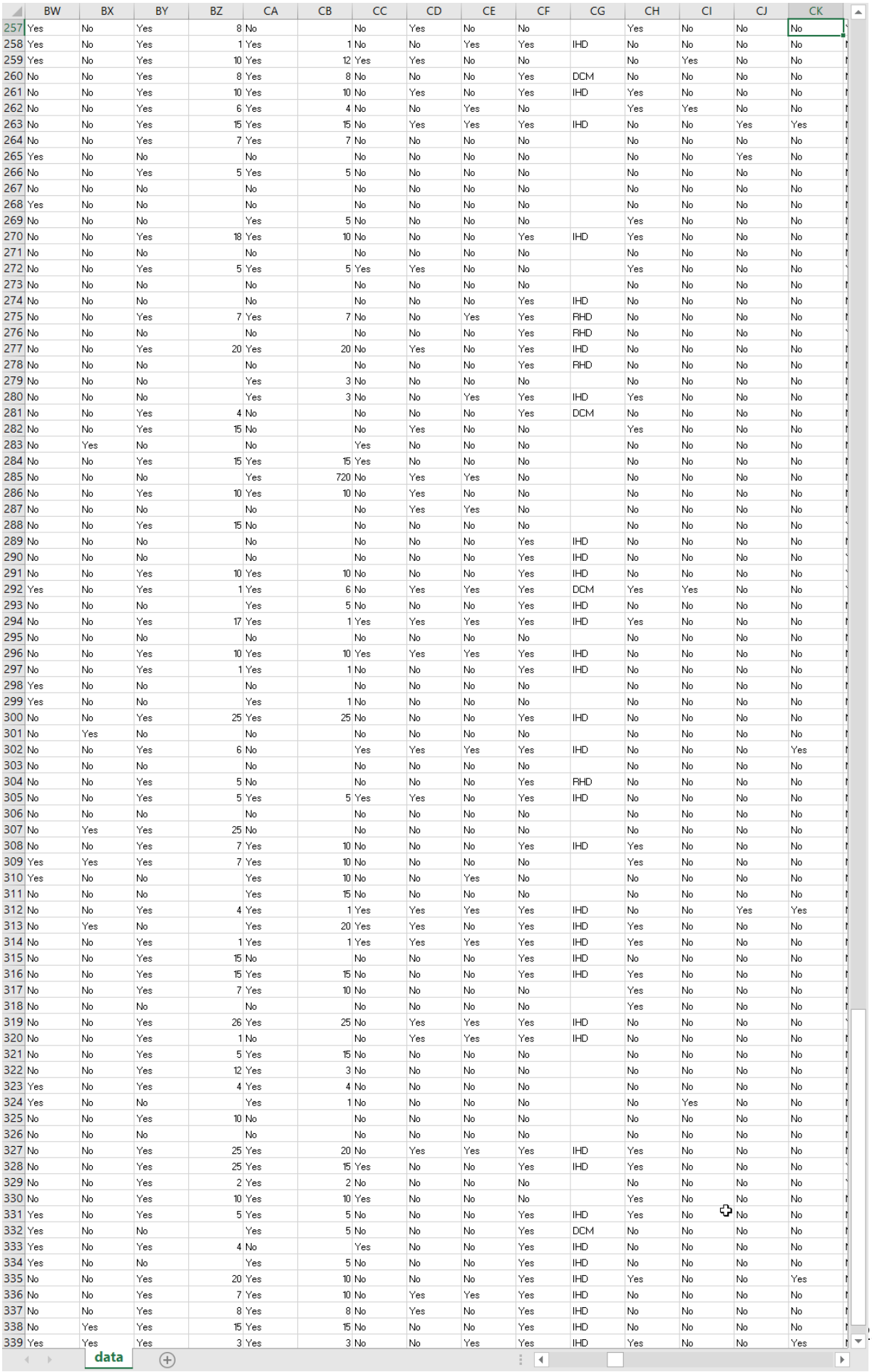

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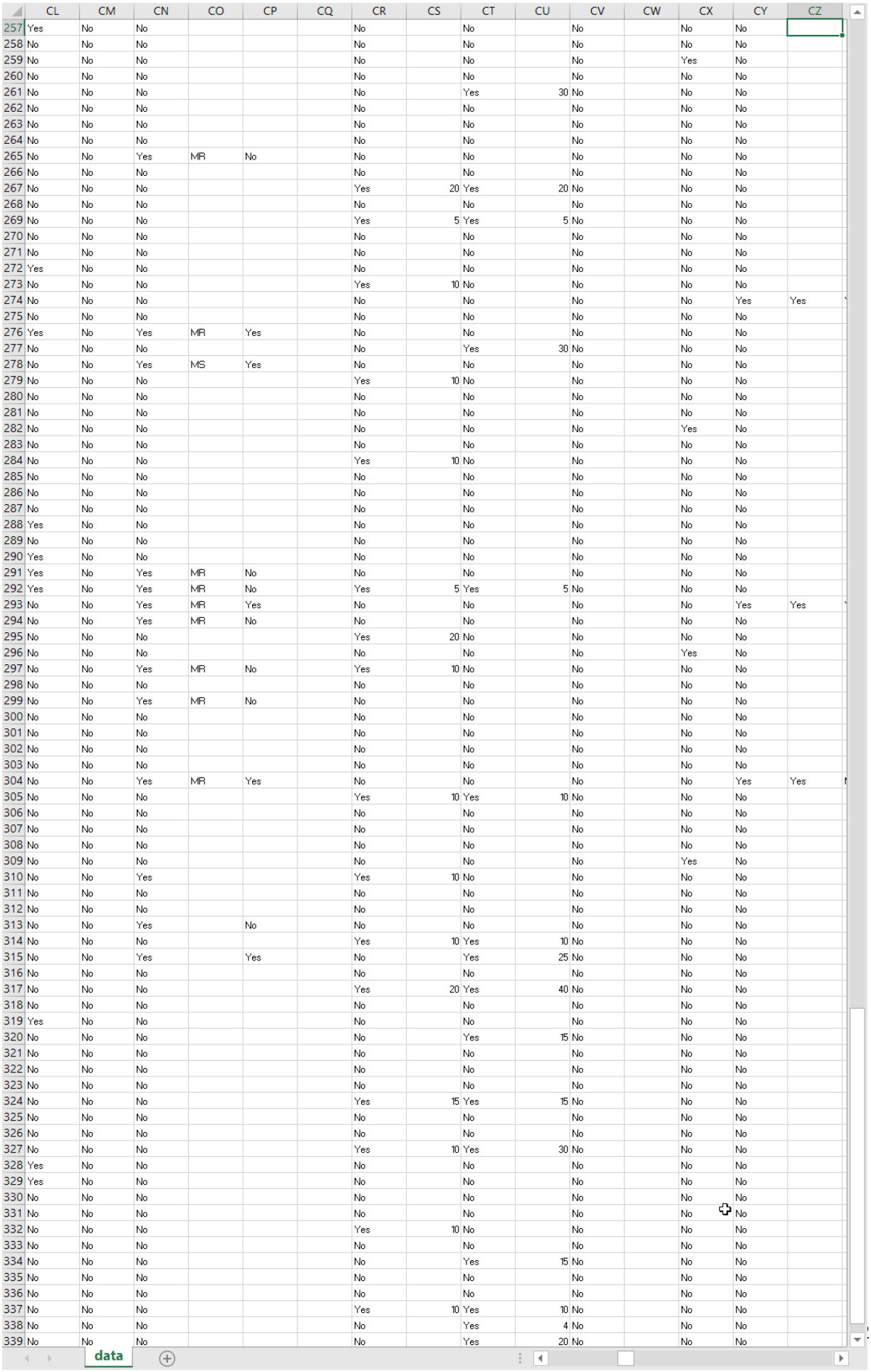

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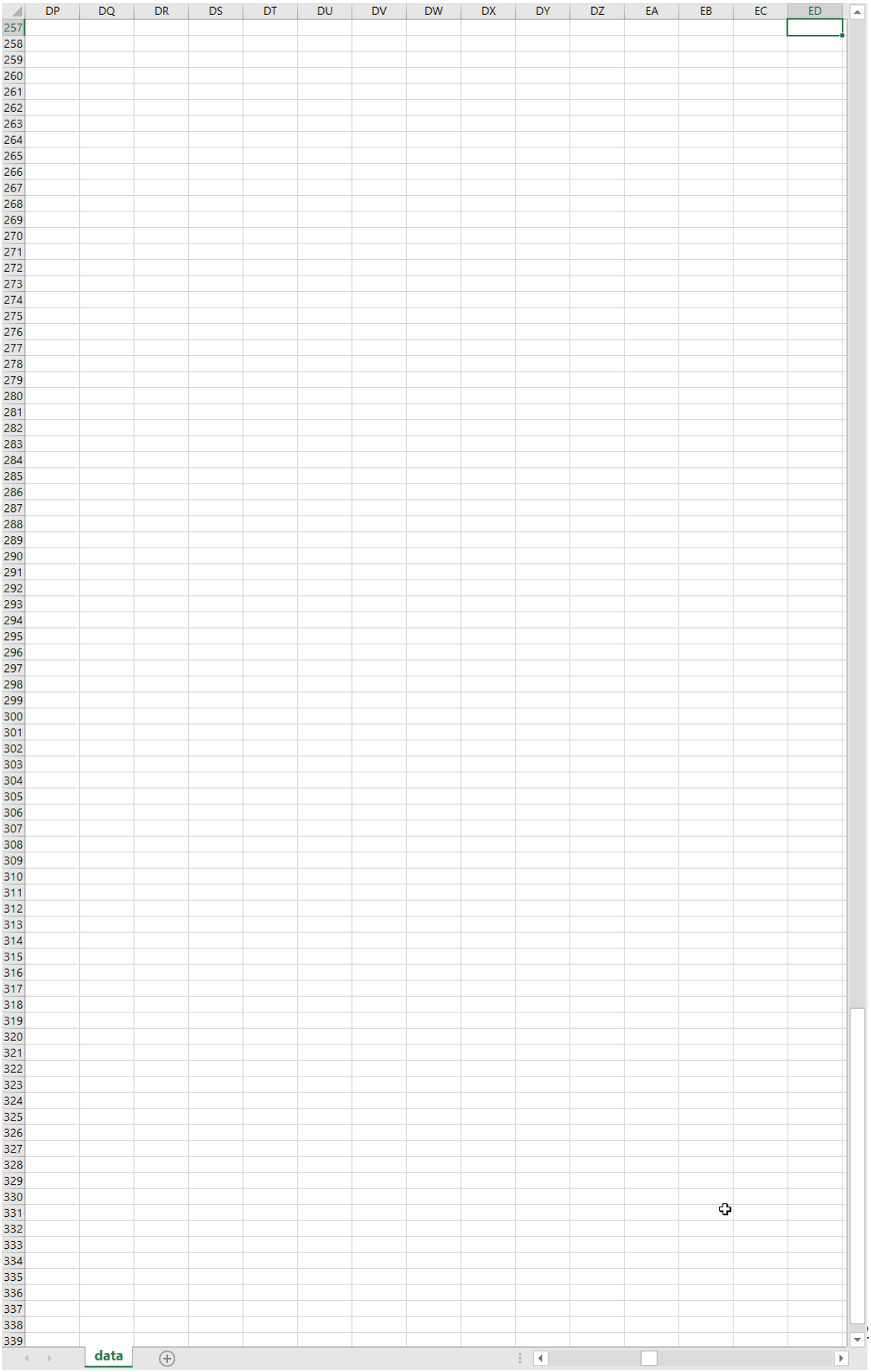
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267	None	95	None	No	No		BL	9	9	41.3		0.9	No	Yes	No
268	None	109	None	No	No		9	9	9	57.3			No	Yes	No
269	None	108	None	Yes	No		BL	BL	Yes	41.1			No	Yes	No
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276	None	120	None	Yes	No		BL	9	Yes	57	21		No	Yes	No
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280	ST Elevation	113	None	No	No		BL	9	Yes						
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283	None	81	RBBB	No	No		BL	9	Yes						
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288	None	95	None	No	No		9	9	Yes	28			No	No	No
289	None	141	RBBB	No	No		9	L	Yes	58.3	16	0.7	No	No	No
290	None	92	None	Yes	No		BL	BL	Yes	41.6		0.8	No	No	No
291	None	100	None	Yes	No		BL	BL	No	24.1		1.1	No	Yes	No
292	None	99	LBBB	Yes	No		BL	BL	Yes	19.4	16		No	Yes	No
293	None	111	None	No	Yes	atrial fibillati	9	9	Yes	42.8			No	Yes	No
294	None	86	None	Yes	No		9	9	No	21		8.6	No	Yes	No
295	None	142	None	Yes	No		9	9	No	56.5		1.3	No	Yes	No
296	None	82	None	No	No		9	9	No						
297	None	85	None	Yes	No		BL	9	Yes	42		1.3	No	Yes	No
298	None	82	None	No	No		9	9	Yes						
299	None	103	None	No	No		9	9	Yes	56.9		1.1	No	Yes	No
300	None	79	None	No	No		BL	BL	Yes						
301	None	92	None	No	No		9	9	Yes	55.3		0.7	No	No	No
302	None	134	LBBB	Yes	No		BL	9	Yes	38.6		2.5	No	No	No
303	None	120	None	No	No		BL	9	Yes	43.1			No	Yes	No
304	None	100	None	No	Yes		BL	9	Yes	53.8			No	Yes	No
305	None	92	None	No	No		BL	9	Yes	55.4			No	No	No
306	None	120	None	No	No		BL	BL	No						
307	None	88	None	No	No		BL	9	9						
308	None	140	None	Yes	No		BL	BL	No	64.8			No	No	No
309	None	82	None	No	No		BL	9	Yes						
310	None	82	None	Yes	No		BL	9	Yes	39.2			No	Yes	No
311							BL	9	Yes						
312	None	86	None	No	No		BL	9	Yes						
313	None	111	None	Yes	Yes		BL	L	Yes	54.9			No	Yes	No
314	ST Elevation	82	None	No	No		BL	9	Yes	41.6			No	No	No
315	None	120	None	No	No		BL	9	Yes	65.7			No	No	No
316	None	96	None	Yes	No		BL	9	Yes						
317	None	96	None	Yes	No		BL	9	Yes						
318	None	112	None	No	No		BL	9	Yes						
319							9	L	No	43.3	18	1.4	No	No	No
320	None	150	None	No	No		BL	9	Yes						
321	None	87	None	No	No		9	9	No	57.5	27	1.2	No	No	No
322	None	107	None	Yes	No		BL	BL	No	56		0.7	No	No	No
323	None	79	None	No	No		BL	9	Yes	57.1	30	1.3	No	No	No
324	None	103	None	No	No		BL	9	Yes	57.3	26	1.2	No	No	No
325	None	116	None	No	No		BL	9	Yes						
326	ST Elevation	111	LBBB	No	No		9	BL	Yes						
327	None	90	None	No	No		BL	BL	Yes						
328	None	87	None	No	No		BL	BL	Yes						
329							9	L	9						
330	ST Elevation	93	None	No	No		9	9	Yes	57.7	22	1.4	No	No	No
331	ST Elevation	147	LBBB	No	No		BL	9	Yes	25			No	No	No
332							BL	BL	Yes	37.2	27	0.7	No	Yes	No
333	None	110	None	No	No		9	BL	No	29.8	9		No	No	No
334							BL	9	Yes	18.5			No	Yes	No
335	ST Depressi	102	None	No	No		BL	9	Yes						
336	None	63	None	No	No		BL	9	Yes	42.9	23	1.6	No	Yes	No
337	None	97	None	Yes	No		9	L	No						
338	None	104	None	No	No		9	BL	Yes	36.7	22		No	No	No
339	None	77	LBBB	No	No		BL	9	Yes						

data

	FP	FQ	FR	FS	FT	FU	FV	FW	FX	FY	FZ	GA	GB	GC	GD
257	No	No	No	No	No	HFpEF(LVE	71.7		69.4	3	10.9	100	2.6	8.2	
258	Yes	No	Yes	No	No	HFrEF (LVE	74.1		55.5		12.4	35	1.4	6.7	113
259	No	No	No	No	No	HFmrEF(LVI					8.8	22	1		
260	No	No	No	No	No	HFrEF (LVE	10		51.6	3.4	13	30	0.7	8.7	
261	No	No	No	No	No	HFmrEF(LVI	357.1	26	358.2	27.2	8.3	57	2.6	8.1	
262	No	No	No	No	No	HFmrEF(LVI	44.6	3.6	46.3		7.6	52	2.4	10	113
263											11.4	21	1.1	14.3	78
264	No	No	No	No	No	HFpEF(LVE					4.6	65	1.1	5.8	
265	No	No	No	No	No	HFmrEF(LVI	49.5	2.5			13.6	31	1.1		
266	Yes	No	No	No	No	HFmrEF(LVI					11.5	112	1.8	8.9	210
267	Yes	No	Yes	No	No	HFmrEF(LVI	70.8		76.1	11.2	12.6	38	1.2		195
268	Yes	No	No	No	No	HFpEF(LVE					3.6	15	0.6		68
269	Yes	No	No	No	No	HFmrEF(LVI	146.1	5.5	147.8	9.2	13.8	55	1.5		124
270	Yes	No	No	No	No	HFpEF(LVE	25	4.9			9.5	57	4.8		
271	Yes	No	No	No	No	HFpEF(LVE	18.5		27.4	13.9	12.1	29	1	7.2	
272	Yes	No	No	No	No	HFpEF(LVE	180.6	2.6	109.6		8.1	65	3.7		115
273	Yes	No	No	No	No	HFrEF (LVE	42	4.5	51.9	9.2	12.4	48	1		239
274	Yes	No	No	No	No	HFpEF(LVE	23.6				11.7	19	0.5	6.2	
275	Yes	No	No	No	Yes	HFrEF (LVE	11.1	2.1			11.9	16	0.7	7.9	91
276	Yes	No	Yes	No	No	HFpEF(LVE	135.8	8	105.2		5.3	14	0.3		
277	Yes	No	No	No	No	HFpEF(LVE	594		1110	35.6	12.1	58	1.1	8.4	79
278	No	No	No	No	No	HFpEF(LVE	29.2	1.2	27.5	1.5	12.6	78	1.2		
279	Yes	No	No	No	No	HFrEF (LVE	14.4	2.3	15		13.3	29	1.3	5.7	
280							473		448	32.4	14	76	4	6.7	
281	Yes	No	No	No	No	HFrEF (LVE	357.6	16.1			12.8	48	1.5		
282	Yes	No	No	No	No	HFpEF(LVE	13.1	4.8			13.6	57	1.2		
283							41.3		47.4		12.3	18	0.6	5.4	143
284	No	Yes	No	Yes	No	HFmrEF(LVI	57.5		57.7		14.4	18	0.6	10.4	220
285							11.8		279	9.6	11.6	33	1	5.9	194
286	Yes	No	Yes	No	No	HFmrEF(LVI	44.8		123.5		14.5	27	1	6.3	168
287							102.3	1.9	107.3	1.8	18.7	199	2.2		
288	No	No	No	No	No	HFrEF (LVE	673.2	5.9	687.6	6.1	11.2	26	0.9	7.9	208
289	Yes	No	No	No	No	HFpEF(LVE	632.8	10.6	864.6	13.1	9.4	114	2.7		
290	No	No	No	No	No	HFmrEF(LVI	56.1	4	55.5		12.5	21	1	5.5	148
291	Yes	No	No	No	No	HFrEF (LVE	20.4	2.6	39.7		12.2	31	1	11.8	243
292	Yes	No	No	No	No	HFrEF (LVE	73.8	7.9	52	3.3	16.8	123	2.4	7.5	59
293	Yes	No	No	No	No	HFmrEF(LVI					12.2		1.1	5.9	126
294	Yes	No	No	No	No	HFrEF (LVE					9.8	121	3.2		95
295	No	No	No	No	No	HFpEF(LVE	16.1	0.5	46.6	1.8	3.5		1.3		
296							131.2		657.4	6.9	8.5	25	1.3	10.4	160
297	Yes	No	No	No	No	HFmrEF(LVI	171.8		129.8	2.6	15.5	64	1.6	5.3	231
298											5.5	18	0.6	4.7	
299	Yes	No	No	No	No	HFpEF(LVE					4.4		0.5	5	116
300							12.2		24.9	1.4	12.9	33	0.8		
301	No	No	No	No	No	HFpEF(LVE	27.4	0.5	29	0.4	9.6	117	2.6		189
302	No	No	No	No	No	HFrEF (LVE	76.8		98.5	3.8	8.6	55	1.1	9.6	130
303	Yes	No	No	No	No	HFmrEF(LVI	6.1	1.1	10.6	0.9	10.1	37	1.3		
304	Yes	No	Yes	No	No	HFpEF(LVE	23.6		21	3.5	12.8	44	1.6	6.5	132
305	No	No	No	No	No	HFpEF(LVE	10.4	1.9			16.6		0.8	12	287
306							27.3	16.7	78.7	6.2	10.7	21	0.9		
307							700.4	11.1			7.8	9	0.9		152
308	No	No	No	No	No	HFpEF(LVE	23.6	1.8	27.3	1	7.9	45	1.6		
309											6.7	118	3.1		
310	Yes	No	No	No	No	HFrEF (LVE	107.5	3.9	118.4	9.6	13	39	0.9	5.2	220
311							28.6	4.6	23.5		11	20	1.1		180
312							28.9	3.7	38.8		12	67	1.8		108
313	No	No	Yes	No	No	HFpEF(LVE	104.5	3.1	113	3.6	8.9	43	1.9	5.8	233
314	No	No	No	No	No	HFmrEF(LVI	106	4.4	113		11	83	2.1	7.7	189
315	Yes	No	No	No	Yes	HFpEF(LVE	19.6				14.3	101	1.5	7.9	133
316							184.5	5.5	244.7	5.7	7.9	132	6		
317							721.4	16.3	835.7	7.9	11.8	102	1.7	9.4	
318							418.7		529.4	21.9	12		3.8		
319	No	No	No	No	No	HFmrEF(LVI	475.5	1.5	470.7	1.4	8.2		1.6	9.8	
320							15.1		231		14.9	22	0.7		
321	No	No	No	No	No	HFpEF(LVE					9.8		0.7		
322	No	No	No	No	No	HFpEF(LVE	43.6	6.8	43.1		7.1	43	1.9	4.2	
323	No	No	No	No	No	HFpEF(LVE	14.2	2.1	17.6		12.5	34	1	9.3	150
324	No	No	No	No	No	HFpEF(LVE	39.9	6.7	74.7	13.6	12.6	32	1.6		
325							37.8	4.9	44.3		12.1	46	1.3	7.4	169
326							215	16.3			16.1	45	1.3		
327							3096	22.8	4184		10.3	80	2.8	9.1	85
328							113.8	3	101.3	3.9	6.5	69	2.3		
329											4.7		1.1		
330	No	No	No	No	No	HFpEF(LVE	154.5	4.6	161.3	4.5	8.3	80	4.3	6.8	114
331	No	No	No	No	No	HFrEF (LVE	69.4		70.5		13.9	234	3.2	9.4	
332	No	No	No	No	No	HFrEF (LVE	65.2		78.4	6.1	8.1	24	0.9	4	
333	Yes	No	No	No	No	HFrEF (LVE	15.9	3.5	21.7	2.4	13.6	19	0.8	9	146
334	Yes	No	No	No	No	HFrEF (LVE	38.1	4.8	42		13.9	54	1.1	6.5	148
335							88.4	3.9	320.9	5.7	9.9	83	5.6	8.1	
336	Yes	No	Yes	No	No	HFmrEF(LVI	39.5	1.7	39.7	1.6	8.7	33	1.4	5.7	
337							29.9	32.7	850.9		14.2	35	1.9	8.7	110
338	No	No	No	No	No	HFrEF (LVE	127.2	3.6	122	3.7	9.7	67	1.8	6.6	126
339							146		269.7	6.9	10.1	93	2.5	8.1	

data

	GC	GD	GE	GF	GG	GH	GI	GJ	GK	GL	GM	GN	GO	GP	GQ
257	8.2					129	5.3				7.1	3.8			
258	6.7	113	64	40	51	131	4.3				7.47	2.1			
259						133	4.6								
260	8.7					128					7.11	6.4			
261	8.1					135	3.6	12.9			7.51	0.9			
262	10	113	77	48	58	136	4.6								
263	14.3	78	150	23	41	124	4.5	4.7							
264	5.8					139	4.4	4.1			7.45	3.2			
265						132	4								
266	8.9	210	148	43	147	117	3.6	9.1			7.27	4			
267		195	71	38	136	136	3				7.39	1.9			
268		68	57	19	33										
269		124	66	40	74	130	4.6								
270						133	4.9				7.09	0.8			
271	7.2					138	4				7.36	2.2			
272		115	127	26	73	131	4.2	5.8			7.29	1.4			
273		239	160	12	192	133	5.1	7.6			7.51	5			
274	6.2					132	3.9				7.46	0.9			
275	7.9	91	111	32	43	129	4				7.09	6.1			
276						126	3.4				7.6	2.9			
277	8.4	79	165	15	35	130	5.1	8.2		285	7.27	3.8			
278						134	3.2				7.42	1.5			
279	5.7					131	3.5				7.41	2.2			
280	6.7					136	4.6				7.27	2.6			
281						123	6.5				7.09	13.8			
282						133	3.6				7.49	1.7			
283	5.4	143	89	34	76	129	4.4				7.41	1.3			
284	10.4	220	249	51	118	130	5.4	3.9		287	7.44	2.3			
285	5.9	194	96	37	114	136	3.5				7.25	2.2			
286	6.3	168	191	37	101	139	3.7				7.27	2.8			
287						136	4.4	11.7			7.28	2.3			
288	7.9	208	158	49	145	136	4.2								
289						128	5.6				7.14	10			
290	5.5	148	46	68	64	136	3.3				7.3	1.7			
291	11.8	243	169	45	164	129	4.4								
292	7.5	59	98	13	35	126	5				7.4	1.4			
293	5.9	126	71	39	78	144	5.1								
294		95	163	14	47	111	5.3								
295						135	4.1	10.2							
296	10.4	160	175	29	98	132	4.2				7.29	5.8			
297	5.3	231	198	61	140	137	4	12.7			7.44	1.5			
298	4.7					133	4.8								
299	5	116	92	31	73	135	4.5	5.6							
300						135	3.8				7.2	0.6			
301		189	151	40	111	138	3.4	11.4			7.41	2			
302	9.6	130	83	53	46	141	3.1				7.5	1.6			
303						129	4.4								
304	6.5	132	68	21	96	134	3.9				7.47	1.2			
305	12	287	128	42	202	130	3.7			309	7.41	2.2			
306						139	2.9				7.45	1			
307		152	154	4	46	133	4.8	3.3			7.2	12			
308						132	4.7				7.33	1.8			
309						133	3.6	6.2	6087		7.57	1			
310	5.2	220	111	49	137	136	4								
311		180	52	56	111	128	2.8								
312		108	86	37	59	127	5.3								
313	5.8	233	91	36	168	131	3.4				7.38	0.8			
314	7.7	189	85	43	117	132	4.8								
315	7.9	133	107	43	72	130	6.1	5.6			7.25	1.4			
316						132	6.5	7							
317	9.4					132	5								
318						143	3.2				7.31	3.4			
319	9.8					124	4				7.58	1.1			
320						133	3.6				7.36	2.8			
321						133	5				7.23	0.7			
322	4.2					139	4.1	6.5			7.5	1.6			
323	9.3	150	66	37	101	134	3.6				7.39	1.1			
324						123	5.3				7.01	19.2			
325	7.4	169	177	30	108	132	4.1				7.32	2.2			
326						142	5.4				7.4	1.4			
327	9.1	85	73	41	36	133	3.7				7.46	3.1			
328						139	4.7				7.29	3.5			
329						137	4.5	10							
330	6.8	114	98	23	65	137	3.3		8024						
331	9.4					128	6.1				7.41	3.4			
332	4					135	4.7	5.5			7.51	1			
333	9	146	136	29	99	134	3.9								
334	6.5	148	113	20	113	141	4.4				7.44	1.2			
335	8.1					133	5.4				7.3	0.7			
336	5.7					135	4.3				7.55	1.4			
337	8.7	110	80	37	61	132	4.2				7.44	3			
338	6.6	126	117	48	59	131	3.9	6.5			7.4	1.7			
339	8.1					135	5.5				7.16	2			

data

	HI	HJ	HK	HL	HM	HN	HO	HP	HQ	HR	HS	HT	HU	HV	HW
257	Yes	No	No	No	Yes	No	No	Yes	No	No	carvediolo	Dytor	No	No	No
258	No	No	No	No	No	No	Yes	Yes	Yes	No		Furosemide	No	No	No
259	Yes	No	No	No	No	No	No	Yes	No	No		Furosemide	Yes	Yes	No
260	Yes	No	No	Yes	Yes	No	No	Yes	No	No	carvediolo	Dytor	Yes	Yes	No
261	No	No	No	No	No	No	Yes	Yes	Yes	No		Dytor	No	No	No
262	No	No	No	No	No	No	No	No	Yes	No			Yes	No	No
263	Yes	No	No	No	Yes	No	No	No	No	No	metoprolol		No	No	No
264	Yes	No	No	No	No	No	No	Yes	No	No		Furosemide	Yes	No	No
265	No	Yes	No	No	No	No	Yes	Yes	No	No		Dytor	No	No	No
266															
267	Yes	No	No	No	No	No	No	No	No	No			No	No	No
268	No	No	No	No	No	No	No	No	No	No			No	No	No
269	No	No	No	Yes	No	No	No	No	No	No			No	No	No
270	No	No	No	No	No	No	Yes	No	Yes	No			No	No	No
271	No	Yes	No	No	No	No	No	No	No	No			Yes	No	No
272	No	No	No	Yes	No	No	Yes	Yes	Yes	No		Furosemide	No	No	No
273	Yes	No	No	No	Yes	No	No	Yes	Yes	No	metoprolol	Dytor	No	No	No
274	Yes	No	No	No	Yes	No	No	Yes	No	No	metoprolol	Furosemide	No	No	No
275	No	No	No	Yes	No	No	No	No	No	No			Yes	Yes	No
276															
277	Yes	No	Yes	No	Yes	No	No	Yes	No	No	metoprolol	Furosemide	Yes	No	No
278	No	No	No	No	Yes	No	No	Yes	No	No	metoprolol	Furosemide	No	No	No
279	Yes	No	Yes	No	Yes	No	No	Yes	Yes	No	metoprolol	Furosemide	No	No	No
280	No	No	No	No	Yes	No	Yes	Yes	Yes	No	metoprolol	Furosemide	No	No	No
281															
282	Yes	No	No	No	No	No	No	No	Yes	No			No	No	No
283	Yes	No	No	No	No	No	No	Yes	No	No		Furosemide	Yes	No	No
284	Yes	No	Yes	No	Yes	No	No	Yes	No	No	carvediolo	Furosemide	Yes	No	No
285	Yes	No	No	No	Yes	No	No	Yes	No	No	metoprolol	Furosemide	No	No	No
286	Yes	No	No	No	Yes	No	No	Yes	No	No	metoprolol	Furosemide	Yes	No	No
287															
288	Yes	No	Yes	No	Yes	No	No	No	Yes	No	carvediolo		Yes	No	No
289															
290	No	Yes	No	No	Yes	No	No	Yes	No	No	bisoprolol	Furosemide	No	No	No
291	Yes	No	No	No	Yes	Yes	No	Yes	No	No	carvediolo	Furosemide	Yes	No	No
292															
293	Yes	No	No	No	Yes	Yes	No	Yes	No	No	bisoprolol	Furosemide	No	No	No
294	No	No	No	No	No	No	No	No	Yes	No			Yes	No	No
295	No	No	No	No	No	No	No	Yes	No	No		Furosemide	No	No	No
296															
297	No	No	No	Yes	Yes	No	No	No	No	No	others		No	No	No
298	No	No	No	No	No	No	No	No	No	No				No	No
299	No	No	No	No	No	No	No	No	No	No			No	No	No
300															
301	Yes	No	No	No	Yes	No	Yes	Yes	Yes	No	carvediolo	Dytor	No	No	No
302	Yes	No	No	No	No	No	No	Yes	Yes	No		Furosemide	Yes	Yes	No
303	Yes	No	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	metoprolol		No	No	No
304	Yes	No	No	No	Yes	Yes	No	No	No	No	metoprolol		No	No	No
305	Yes	No	No	No	No	No	No	No	No	Yes			Yes	Yes	No
306	Yes	No	Yes	No	No	Yes	No	No	No	No			No	No	No
307	No	No	No	No	No	No	No	No	No	No			No	No	No
308	Yes	No	Yes	No	No	Yes	No	No	Yes	No			Yes	No	No
309	No	No	Yes	Yes	No	Yes	Yes	No	Yes	No			No	No	No
310	Yes	No	Yes	No	Yes	No	No	No	No	No	metoprolol		No	No	No
311	No	Yes	Yes	No	No	Yes	No	No	No	No			No	No	No
312	No	No	No	No	No	No	Yes	No	Yes	No			No	No	No
313	No	No	Yes	No	No	No	Yes	No	No	No			No	No	No
314	No	No	No	Yes	Yes	No	No	No	No	Yes	metoprolol		No	No	No
315	Yes	No	Yes	No	No	No	No	No	No	No			Yes	No	No
316	No	No	No	No	No	No	Yes	Yes	Yes	No		Furosemide	No	No	No
317	Yes	No	No	No	No	No	Yes	No	No	No			No	No	No
318	Yes	No	No	No	No	No	No	Yes	No	No		Furosemide	No	No	No
319	No	No	No	No	Yes	No	No	Yes	No	No	carvediolo	Furosemide	Yes	No	No
320	No	No	No	No	No	No	No	No	No	No			No	No	No
321	No	Yes	No	Yes	Yes	No	No	No	No	Yes	carvediolo		Yes	No	No
322	No	No	No	No	Yes	No	Yes	No	Yes	No	metoprolol		Yes	Yes	No
323	No	Yes	Yes	Yes	Yes	No	No	Yes	No	No	metoprolol	Furosemide	Yes	Yes	No
324	No	No	Yes	Yes	No	No	No	Yes	Yes	No		Furosemide	No	No	No
325	No	No	No	Yes	No	No	No	Yes	No	No		Furosemide	No	No	No
326	No	No	No	No	No	No	No	No	No	No			No	No	No
327	No	No	No	No	Yes	No	Yes	Yes	Yes	No	metoprolol	Furosemide	No	No	No
328	No	No	No	Yes	Yes	No	Yes	Yes	Yes	No	metoprolol	Furosemide	No	No	No
329	No	Yes	No	No	Yes	No	No	No	No	No	metoprolol		Yes	Yes	No
330	No	No	No	No	Yes	No	Yes	No	Yes	Yes	metoprolol		No	No	No
331															
332	Yes	No	Yes	No	Yes	Yes	No	Yes	No	No	metoprolol	Furosemide	No	No	No
333	No	Yes	Yes	No	Yes	No	Yes	No	Yes	No	metoprolol		Yes	No	No
334	Yes	No	No	No	No	No	No	Yes	No	No		Furosemide	No	No	No
335	No	No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	metoprolol	Furosemide	No	No	No
336	Yes	No	No	No	Yes	No	Yes	No	Yes	No	metoprolol		Yes	No	No
337	Yes	No	No	No	Yes	Yes	No	Yes	Yes	No	metoprolol	Furosemide	Yes	No	No
338	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes	No	carvediolo	Furosemide	Yes	Yes	No
339	No	No	No	No	No	Yes	Yes	Yes	Yes	No		Furosemide	No	No	No

data

	HU	HV	HW	HX	HY	HZ	IA	IB	IC	ID	IE	IF	IG	IH	II
257	No	No	No	No	No	Yes	Aspirin	Atorvastatin	Yes	No	No	Yes	No	No	No
258	No	No	No	No	No	No	Aspirin	Atorvastatin	No	No	Yes	Yes	No	No	No
259	Yes	Yes	No	No	No	No	Aspirin	Atorvastatin	No	No	No	No	No	No	No
260	Yes	Yes	No	No	No	No	Aspirin	Atorvastatin	No	No	No	No	No	No	No
261	No	No	No	No	No	No	Aspirin	Atorvastatin	No	No	No	Yes	No	No	No
262	Yes	No	No	No	No	No	Both	Atorvastatin	No	No	Yes	No	No	No	No
263	No	No	No	No	No	Yes	Aspirin	Atorvastatin	No	No	No	No	No	No	No
264	Yes	No	No	No	No	Yes	Aspirin	Simvastatin	No	No	No	No	No	No	No
265	No	No	No	No	No	No	4	Others	No	No	No	No	No	No	No
266										Yes	No	No	No	No	No
267	No	No	No	No	No	No	4	Others	No	No	No	Yes	No	No	No
268	No	No	No	No	No	No	4	Others	No	No	No	No	No	No	No
269	No	No	No	No	No	No	4	Others	No	Yes	No	No	No	No	No
270	No	No	No	No	No	No	Clopidogrel	Atorvastatin	No	No	Yes	No	No	No	No
271	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No	No	No	No
272	No	No	No	No	No	Yes	Aspirin	Atorvastatin	No	No	Yes	No	No	No	Yes
273	No	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No	No	No	No
274	No	No	No	No	No	No	4	Others	Yes	No	No	No	Yes	No	No
275	Yes	Yes	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No	No	No	No
276										Yes	No	No	Yes	No	No
277	Yes	No	No	No	No	Yes	Aspirin	Atorvastatin	No	No	No	Yes	No	No	No
278	No	No	No	No	No	No	4	Others	No	Yes	No	No	No	No	No
279	No	No	No	No	No	No	4	Others	No	No	No	No	No	No	No
280	No	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes	No	No	No
281										Yes	Yes	No	No	No	No
282	No	No	No	No	No	Yes	Aspirin	Atorvastatin	No	Yes	No	No	No	No	No
283	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No	No	No	No	No	No	No
284	Yes	No	No	No	No	Yes	Aspirin	Atorvastatin	No	Yes	No	No	No	No	No
285	No	No	No	No	No	No	Aspirin	Atorvastatin	No	No	No	Yes	No	No	No
286	Yes	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes	No	No	No
287										Yes	No	No	No	No	No
288	Yes	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes	No	No	No
289										Yes	No	No	No	No	No
290	No	No	No	No	No	No	Aspirin	Atorvastatin	No	No	No	No	No	No	No
291	Yes	No	No	No	No	No	4	Atorvastatin	No	No	No	Yes	No	No	No
292										Yes	No	No	No	No	No
293	No	No	No	No	No	No	Aspirin	Atorvastatin	Yes	No	No	No	Yes	No	No
294	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No	No	No	No
295	No	No	No	No	No	No	4	Others	No	No	No	No	No	No	No
296										No	No	Yes	No	No	No
297	No	No	No	No	No	No	Aspirin	Atorvastatin	No	No	No	Yes	No	No	No
298		No	No	No	No	No	4	Others	No	No	No	No	No	No	No
299	No	No	No	No	No	No	4	Others	No	No	No	No	No	No	No
300										No	No	Yes	No	No	No
301	No	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No	No	No	No
302	Yes	Yes	No	No	No	Yes	Aspirin	Others	No	No	No	Yes	No	No	No
303	No	No	No	No	No	No	4	Others	No	No	No	No	No	No	No
304	No	No	No	No	No	No	4	Atorvastatin	Yes	No	Yes	No	Yes	No	No
305	Yes	Yes	No	No	No	Yes	Both	Atorvastatin	No	No	No	No	No	No	No
306	No	No	No	No	No	No	4	Others	No	No	No	No	No	No	No
307	No	No	No	No	No	No	Aspirin	Atorvastatin	No	No	No	No	No	No	No
308	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No	No	No	No
309	No	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No	No	No	No
310	No	No	No	No	No	No	Aspirin	Atorvastatin	No	No	Yes	No	No	No	No
311	No	No	No	No	No	No	Aspirin	Simvastatin	No	Yes	No	No	No	No	No
312	No	No	No	No	No	Yes	Aspirin	Atorvastatin	No	Yes	No	No	No	No	No
313	No	No	No	No	No	No	Aspirin	Atorvastatin	No	No	No	No	No	No	No
314	No	No	No	No	No	Yes	Both	Atorvastatin	No	No	No	No	No	No	No
315	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No	No	No	No	No	No	No
316	No	No	No	No	No	Yes	Both	Atorvastatin	No	No	No	Yes	No	No	No
317	No	No	No	No	No	Yes	4	Atorvastatin	No	Yes	No	Yes	No	No	No
318	No	No	No	No	No	No	Both	Atorvastatin	No	No	No	No	No	No	Yes
319	Yes	No	No	No	No	Yes	Both	Atorvastatin	No	Yes	No	No	No	No	No
320	No	No	No	No	No	No	Both	Atorvastatin	No	No	No	Yes	No	No	No
321	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No	No	No	No
322	Yes	Yes	No	No	No	No	Aspirin	Atorvastatin	No	No	Yes	No	No	No	No
323	Yes	Yes	No	No	No	No	Both	Others	No	No	Yes	No	No	No	No
324	No	No	No	No	No	No	4	Others	No	No	No	No	No	No	No
325	No	No	No	No	No	Yes	Aspirin	Others	No	No	Yes	No	No	No	No
326	No	No	No	No	No	No	4	Others	No	No	No	No	No	No	No
327	No	No	No	No	No	Yes	Both	Atorvastatin	No	Yes	No	Yes	No	No	No
328	No	No	No	No	No	Yes	4	Atorvastatin	No	No	No	No	No	No	No
329	Yes	Yes	No	No	No	No	4	Others	No	No	No	No	No	No	No
330	No	No	No	No	No	Yes	Aspirin	Atorvastatin	No	No	Yes	No	No	No	Yes
331										No	Yes	No	No	No	Yes
332	No	No	No	No	No	No	Aspirin	Atorvastatin	No	Yes	No	No	No	No	No
333	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No	No	Yes	Yes	No	No	No
334	No	No	No	No	No	No	Aspirin	Atorvastatin	No	No	Yes	No	No	No	No
335	No	No	No	No	No	Yes	Aspirin	Atorvastatin	No	No	No	Yes	No	No	No
336	Yes	No	No	No	No	Yes	Both	Atorvastatin	No	Yes	No	No	No	No	No
337	Yes	No	No	No	No	No	Aspirin	Atorvastatin	No	No	No	Yes	No	No	No
338	Yes	Yes	No	No	No	No	4	Others	No	No	No	Yes	No	No	No
339	No	No	No	No	No	Yes	Both	Atorvastatin	No	No	Yes	No	No	No	No

data

	II	IJ	IK	IL	IM	IN	IO	IP	IQ	IR	IS	IT	IU	IV	IW
257	No	No										No			
258	No	No										No			
259	No	No										No			
260	No	No										No			
261	No	No										No			
262	No	No										No			
263	No	No										No			
264	No	Yes										No			
265	No	No										No			
266	No	No										Yes			
267	No	No										No			
268	No	Yes										No			
269	No	No										No			
270	No	No										No			
271	No	No										No			
272	Yes	No										No			
273	No	No										No			
274	No	No										No			
275	No	No										No			
276	No	No										Yes			
277	No	No										No			
278	No	No										No			
279	No	No										No			
280	No	No										No			
281	No	No										Yes			
282	No	No										No			
283	No	No										No			
284	No	No										No			
285	No	No										No			
286	No	No										No			
287	No	No										No			
288	No	No										No			
289	No	No										Yes			
290	No	No										No			
291	No	No										No			
292	No	No										Yes			
293	No	No										No			
294	No	No										No			
295	No	No										No			
296	No	No										Yes			
297	No	No										No			
298	No	Yes										No			
299	No	Yes										No			
300	No	No										Yes			
301	No	No										No			
302	No	No										No			
303	No	No	sle									No			
304	No	No										No			
305	No	No										No			
306	No	No										No			
307	No	No										No			
308	No	No										No			
309	No	No										No			
310	No	No										No			
311	No	No										No			
312	No	No										No			
313	No	No										No			
314	No	No										No			
315	No	No										No			
316	No	No										No			
317	No	No										No			
318	Yes	No										No			
319	No	No										No			
320	No	No										No			
321	No	No										No			
322	No	No										No			
323	No	No										No			
324	No	No										No			
325	No	No										No			
326	No	No										No			
327	No	No										No			
328	No	No										No			
329	No	Yes										No			
330	Yes	No										No			
331	Yes	No										Yes			
332	No	No										No			
333	No	No										No			
334	No	No										No			
335	No	No										No			
336	No	No										No			
337	No	No										No			
338	No	No										No			
339	No	No										No			

data

	JM	JN	JO	JP	JQ	JR	JS	JT	JU	JV	JW	JX	JY	JZ	KA
257				79	21	3.5	2/22/2016	2/25/2016						Dead	11-10-16
258				73	27	2.7	2/17/2016	2/21/2016						Alive	2/21/2016
259				58	42	1.8	2/25/2016	03-04-16						Alive	03-04-16
260				82	18	4	2/25/2016	2/28/2016						Alive	12-08-16
261				49	51	1.4	2/28/2016	03-12-16						Alive	03-12-16
262				68	32	2.3	03-01-16	03-05-16						Alive	04-12-16
263				51	49	1.5	4/23/2016	4/28/2016						Alive	4/28/2016
264				52	48	1.5	05-09-16	5/14/2016						Alive	5/14/2016
265				70	30	2.4	05-10-16	5/13/2016						Alive	5/18/2016
266				54	46	1.6	1/18/2015	1/20/2015	No	No	No	No		Dead	1/20/2015
267				87	13	5.2	1/17/2015	1/21/2015						Alive	2/13/2018
268				10	90	0.4	01-05-15	01-08-15						Alive	02-05-15
269				52	48	1.5	01-04-15	01-06-15						Alive	10/27/2017
270				72	28	2.6	6/15/2016	6/22/2016						Alive	11-02-17
271				48	52	1.3	6/14/2016	6/22/2016						Alive	6/22/2016
272				64	36	2.1	5/25/2016	5/31/2016						Alive	01-12-17
273				70	30	2.5	06-08-16	6/17/2016						Alive	8/16/2016
274				65	35	2.1	5/22/2016	5/27/2016						Dead	5/27/2016
275				57	43	1.8	4/27/2016	05-04-16						Alive	03-07-18
276	Sudden card			41	59	1.1	05-12-16	5/30/2016	No	No	No	No		Dead	5/30/2016
277				50	50	1.4	01-05-16	01-11-16						Alive	3/28/2018
278				54	46	1.6	01-05-16	1/14/2016						Alive	2/27/2018
279				75	25	3	01-10-16	1/15/2016						Alive	11-12-16
280				56	44	1.7	01-12-16	1/19/2016						Dead	1/29/2016
281				2	98	0.3	1/21/2016	1/22/2016	No	No	No	No		Dead	1/22/2016
282				58	42	1.8	1/21/2016	1/29/2016						Dead	02-04-16
283				76	24	3.1	1/24/2016	1/29/2016						Alive	1/29/2016
284				85	15	4.6	1/24/2016	1/30/2016						Alive	07-12-18
285				85	15	4.6	1/25/2016	1/30/2016						Alive	10/31/2016
286				85	15	4.6	1/27/2016	1/30/2016						Alive	06-04-18
287				56	44	1.7	02-06-16	02-07-16						Dead	09-08-16
288				74	26	2.9	02-10-16	02-12-16						Alive	05-11-17
289				51	49	1.5	02-11-16	2/13/2016	No	No	No	No		Dead	2/13/2016
290				81	19	3.8	2/16/2016	2/22/2016						Alive	1/29/2018
291				80	20	3.7	05-03-15	05-12-15						Dead	02-01-16
292				32	68	0.9	05-06-15	5/13/2015	No	No	No	No		Dead	5/13/2015
293				78	22	3.4	5/19/2015	5/21/2015						Alive	7/28/2018
294				18	82	0.6	4/29/2015	05-08-15						Alive	07-06-16
295				27	73	0.8	4/30/2015	05-03-15						Alive	5/22/2015
296				70	30	2.5	07-07-15	07-07-15	No	No	No	No		Dead	07-07-15
297				91	9	6.8	6/29/2015	07-04-15						Alive	5/24/2018
298				56	44	1.7	6/29/2015	07-08-15						Alive	07-08-15
299				44	56	1.2	5/28/2015	06-08-15						Alive	03-12-16
300				82	18	3.9	05-08-15	05-10-15	No	No	No	No		Dead	05-10-15
301				75	25	2.9	5/24/2015	06-05-15						Alive	06-05-15
302				70	30	2.5	05-03-15	5/27/2015						Alive	7/13/2015
303				65	35	2.2	2/19/2015	4/27/2015						Dead	11-03-17
304				72	28	2.7	2/17/2015	2/21/2015						Alive	02-11-16
305				89	11	5.8	2/14/2015	2/25/2015						Dead	3/14/2015
306				35	65	1	02-11-15	2/20/2015						Alive	2/20/2015
307				58	42	1.8	02-11-15	2/16/2015						Alive	2/16/2015
308				61	39	1.9	02-09-15	2/17/2015						Alive	6/28/2018
309				46	54	1.3	02-09-15	2/25/2015						Alive	3/27/2015
310				89	11	6	02-09-15	02-12-15						Alive	04-05-18
311				52	48	2.5	02-07-15	2/13/2015						Alive	11/24/2017
312				69	31	2.4	02-04-15	02-10-15						Dead	4/23/2017
313				78	22	3.3	02-04-15	02-11-15						Alive	02-11-15
314				76	24	3.1	01-07-15	01-10-15						Alive	1/24/2015
315				70	30	2.5	1/18/2015	1/24/2015						Alive	3/27/2017
316				66	34	2.7	1/27/2015	02-01-15						Dead	07-01-18
317				76	24	3.1	1/14/2015	2/23/2015						Alive	2/23/2015
318				54	46	1.6	05-04-16	05-04-16						Alive	05-04-16
319				53	47	1.6	05-09-16	5/16/2016						Alive	5/16/2016
320				80	20	37	4/20/2016	4/22/2016						Alive	4/24/2016
321				69	31	2.4	3/21/2016	3/26/2016						Alive	07-07-16
322				70	30	2.4	05-08-16	5/14/2016						Dead	06-09-16
323				77	23	3.1	09-12-16	9/16/2016						Alive	6/28/2018
324				60	40	1.9	09-07-16	9/24/2016						Alive	8/13/2017
325				82	18	4.1	09-03-16	09-09-16						Alive	09-09-16
326				83	17	4.2	10-12-16	10-12-16						Alive	10-12-16
327				28	72	0.8	09-01-16	09-09-16						Alive	05-07-17
328				54	46	1.6	8/27/2016	8/31/2016						Alive	3/26/2018
329				41	59	1.1	10-03-16	10-06-16						Alive	06-04-18
330				78	22	3.3	10/13/2016	10/22/2016						Alive	10/24/2016
331	Pump failure			61	34	1.9	11/16/2016	12-01-16	No	No	No	No		Dead	12-01-16
332				73	27	2.8	12/13/2016	12/17/2016						Alive	08-03-18
333				75	25	3	11/30/2016	12-03-16						Alive	08-01-17
334				73	27	2.8	11/19/2016	11/20/2016						Alive	5/13/2017
335				74	26	2.9	07-03-16	07-08-16						Dead	9/16/2016
336				52	48	1.5	07-11-16	7/16/2016						Dead	01-03-18
337				79	21	3.5	7/18/2016	7/23/2016						Alive	7/23/2016
338				67	33	2.3	9/18/2016	9/24/2016						Alive	9/25/2017
339				66	34	2.2	9/29/2016	10-06-16						Alive	12/25/2016

data

12 Abstract

TITLE OF ABSTRACT

A study of the clinical characteristics, risk factors and mortality outcomes of patients admitted with acute decompensated heart failure to general medical wards and intensive care units in a tertiary care hospital in South India (CHROME-HF)

DEPARTMENT: General Medicine

NAME OF CANDIDATE: Dr. Kevin John John

DEGREE AND SUBJECT: MD General Medicine

NAME OF GUIDE: Dr. Thambu David Sudarsanam

OBJECTIVES

The study was conducted to determine the incidence density of mortality, median survival time, predictors of mortality and the costs incurred by patients admitted with acute decompensated heart failure.

METHODS

This study was a prospective observational cohort study of patients admitted with acute decompensated heart failure, diagnosed clinically using the Boston Criteria. The recruitment of participants took place between January 2014 and December 2017 and patients were followed by telephonic interview prospectively till June 2018. Continuous data were described using mean and standard deviation. Person time was calculated in

months and the incidence density was calculated. Time to event data was performed by using Kaplan-Meier estimate and was used to calculate the survival time. Unadjusted and adjusted analyses were done using Cox-proportional hazard regression analyses to determine predictors of mortality.

RESULTS

A total of 338 patients participated in the study. Fifty one percent were males; the mean age 58.8 years. Fifty nine percent had diabetes, 55.6% hypertension, 24.3% dyslipidemia and 39.6% previously diagnosed heart failure. The incidence density of mortality was 6.47 deaths per 100 person-months. The median duration of survival was 921 days. Cyanosis, previous stroke or transient ischemic attack, lactate > 2mmol/L, troponin T >50pg/ml and class D heart failure independently predicted 6-month mortality; Seattle heart failure model did not. The mean total direct cost of admission was ₹1,18,690.94.